LBT-N300/N300K

SERVICE MANUAL

AEP Model UK Model

E Model

LBT-N300/N300K are composed of following models. As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR THESE SYSTEM

	LBT-N300		LBT-N300K			
	AEP UK		Е	EA	MY	SP
CONPACT DISC STEREO DECK RECEIVER	HCD-N300		HCD-N300K			
SPÈAKER SYSTEM	SS-LB300					
TURN TABLE	PS-LX56P					

PARTS LIST

NOTE:

 Items marked " * "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Abbreviation

EA: Saudi Arabia Model MY: Malaysia Model SP: Singapore Model

Part No.	Description
1-501-374-11 1-501-594-31 1-501-659-41	COMMANDER, STANDARD (RM-S300L) ANTENNA, LOOP ANTENNA (FM) (N300:AEP, UK) ANTENNA (FM) (N300K:E, EA, MY, SP) MANUAL, INSTRUCTION (ENGLISH) (UK)
3-798-238-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-798-238-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN) (AEP)
3-798-238-81	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, CHINESE) (E. EA. MY. SP)
	MANUAL, INSTRUCTION (ARABIC) (EA) COVER (MLY), BATTERY (FOR RM-S300L)
	SNOW BOX (L) (FOR PS-LX56P) SNOW BOX (R) (FOR PS-LX56P)

4-971-010-01 CUSHION (FOR HCD)

4-971-341-01 INDIVIDUAL CARTON (N300:AEP, UK) 4-971-343-01 INDIVIDUAL CARTON (N300K:E, EA, SP)

4-972-653-01 CUSHION (FOR SS)
4-974-598-01 INDIVIDUAL CARTON (N300K:MY)
A-4674-087-A TURN TABLE MAT ASSY (FOR PS-LX56P)

COMPONENT HI-FI STEREO SYSTEM

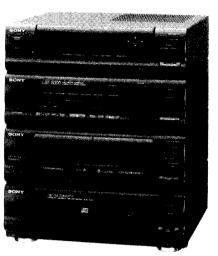


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Consumer A&V Products Company
Home A&V Products Div.

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Quality Engineering Dept.

HCD-N300/N300K

SERVICE MANUAL



AEP Model UK Model E Model

These set are the tuner, deck, CD and amplifier section in LBT-N300 and LBT-N300K.

Photo: HCD-N300

CD SECTION	Model Name Using Similar Mechanism	HCD-N200	
	Base Unit Type	BU-5BD19	
	Optical Pick-up Type	KSS-213BA	
TAPE DECK	Model Name Using Similar Mechanism	HCD-N350/N350K	
SECTION	Tape Transport Mechanism Type	TCM-220WR2	

SPECIFICATIONS

CD	player	section
----	--------	---------

System Compact disc digital audio system

Laser

Semiconductor laser

Wavelength

780-790 nm

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

EE, CIS models:65.0-74.0 MHz

(10 kHz step) 87.5-108.0 MHz

(50 kHz step)

Other models: 87.5-108.0 MHz

Aerial

Aerial terminals

FM wire antenna

75 ohm unbalanced

Intermediate frequency

10.7 MHz

AM tuner section

Tuning range

AEP, EE, CIS models:

MW:

531-1,602 kHz

153-279 kHz LW:

(with the tuning interval set

at 3 kHz)

Middle Eastern model:

MW: 531-1,602 kHz

(with the tuning interval set

at 9 kHz)

SW: 5.95-17.90 kHz

Other models:

531-1,602 kHz

(with the tuning interval set

at 9 kHz)

Aerial

AM loop aerial External aerial

terminals

Intermediate frequency

450 kHz

Casette deck section

Recording system

4-track 2-channel stereo

Frequency response

AEP, EE, CIS models:

(DOLBY NR OFF)

 $40-13,000 \text{ Hz} \text{ (} \pm 3 \text{ dB)}, \text{ using}$

Sony TYPE I cassette

40-14,000 Hz (± 3 dB), using

Sony TYPE II cassette

Other models:

 $40-13,000 \text{ Hz} (\pm 3 \text{ dB}), \text{ using}$

Sony TYPE I cassette

40-14,000 Hz ($\pm 3 \text{ dB}$), using

Sony TYPE II cassette

Wow and flutter

± 0.15% W.Peak (IEC)

0.1% W.RMS (NAB)

± 0.2% W.Peak (DIN)

- Continued on next page -

COMPACT DISC DECK RECEIVER SONY

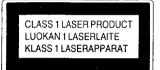


Amplifier section	TABLE OF CONTENTS
Peak music power output (N300K): 650 W	Section <u>Title</u> Page
Continuous RMS power output:	-
30 W+30 W, (6 ohms at 1 kHz,	SECTION 1. SERVICING NOTE 4
DIN) 35 W+35 W, (6 ohms at 1 kHz,	SECTION 2. GENERAL5
5% THD)	
Music power output (N300):	SECTION 3. DISASSEMBLY
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10% THD)	3-2. Main Board 6
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47 kilohms	3-5. Mechanism Deck Block 8
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47 kilohms	OFOTION 4 MEGUANION AD MIGHARING
MC 1, 2 (phono jack) (N300K):	SECTION 4. MECHANICAL ADJUSTMENTS 10
Sensitivity 1 mV, impedance	SECTION E ELECTRICAL AR HIGTMENTO
10 kilohms	SECTION 5. ELECTRICAL ADJUSTMENTS
Outputs PHONES (phono jack):	DECK Section
accept headphones of 8 ohms or more.	TUNER Section
SPEAKER:	CD Section
accept impedance of 6 to 16 ohms.	SECTION 6. DIAGRAMS
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220-240 V AC, 50/60 Hz	6-17. Schematic Diagram — Karaoke Section —
Other models:	(N300K Model Only)
110–120 V or 220–240 V AC	6-18. Schematic Diagram — Panel Section —
adjustable, 50/60 Hz Power consumption	6-19. Printed Wiring Board — Panel Section —
105W	IC608 Graphic Control (CXP82612-006Q/009Q)
Dimensions	IC Pin Functions
Approx. $355 \times 425 \times 355$ mm (w/h/d)	6-21. Printed Wiring Board — CD Section —
incl. projecting parts and controls	6-22. Schematic Diagram — CD Section —
Mass Approx. 8.3 kg (N300)	6-23. IC Block Diagrams — CD Section —
Approx. 8.8 kg (N300K)	6-24. IC Block Diagrams — Main Section —
	6-25. IC Pin Functions — Main Section —
Design and specifications subject to change without notice.	• IC1051 Master Control (TMP87CP64F-6254)
Abbreviation	10 100 Master Control (1MI 07 01 04) 0234/
EE : East European model	SECTION 7. EXPLODED VIEWS
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SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.	OFOTION OF FLECTRICAL PARTY COM
. January of Conf.	SECTION 8. ELECTRICAL PARTS LIST 88

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This appliance is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION	; INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
ADVARSEL	USYNLIG LASERSTRALING VED ABNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGA UDSÆTTELSE FOR STRALING
VARO!	; AVATTAESSA JA SUOJALUKITUS OHITETTAESSA DLET ALTTINA LASERSATERYLLE.
VARNING	; LASERSTRALING NAR DENNA DEL AR OPPNAD OCH SPARREN AR URXOPPLAD
ADVARSEL	; USYNLIG LASERSTRÄLING NAR DEKSEL APNES UNNGA EKSPONERING FOR STRÄLEN

This caution label is located inside the unit.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

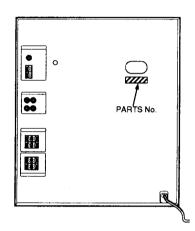
Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

MODEL IDENTIFICATION — BACK PANEL —



		PARTS NO.
N300	: AEP 2 Model	4-969-783-1□
N300	: AEP 1 Model (made in malaysia)	4-969-783-2□
N300	: AEP 1 Model (made in indonesia)	4-969-783-3□
N300	: German Model	4-969-783-4□
N300	: Italian Model	4-969-783-5□
N300	: East European Model	4-969-783-6□
N300	: CIS Model	4-969-783-7□
N300	: UK Model	4-969-783-8□
N300K	: Saudi Arabia Model	4-970-162-0□
N300K	: E Model	4-970-162-1□
N300K	: Malaysia Model	4-970-162-2□
N300K	: Singapore Model	4-970-162-3□

SECTION 1 SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

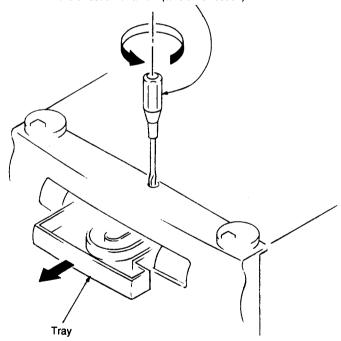
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIQUE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF

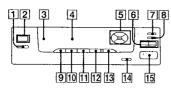
Insert a tapering driver into the aperture of the unit bottom, and turn in the direction of arrow (to OUT direction).



* To close the disc tray, turn the driver in the reverse direction (to IN direction).

Front Panel

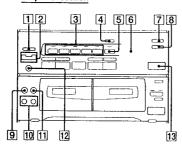
Tuner section



- SLEEP button (19)
- 2 SYSTEM POWER switch (20)
- 3 Remote sensor
- 4 Display window (25)
- 5 CURSOR CONTROL buttons (6, 18, 19, 20)
- 6 TUNING (+/-) buttons (10, 20)
- 7 TUNING MEMORY button (11)
- 8 TUNING MODE button (10, 20)
- 9 TIMER SET button (19)
- 10 DAILY button (19)
- 11 REC button (20)
- [12] CLOCK SET button (6)
- 13 ENTER/NEXT button (6, 19)
- 14 DISPLAY button (6, 8, 18)
- 15 TUNER/BAND button (10, 15)

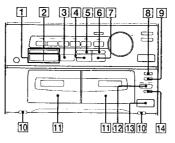
Amplifier section

S



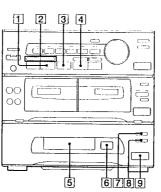
- T KARAOKE PON/MPX button (21) (N300K)
- 2 KEY CONTOL buttons (21) (N300K)
- 3 Preset equalizer setting buttons (17)
- 4 EQ MEMORY button (18)
- 5 P.FILE button (18)
- 6 VOLUME control (7, 17, 20)
- DBFB button (17)
- 8 SURROUND button (18)
- 9 MIC LEVEL Control (20) (N300K)
- 10 MIC 1, 2 jacks (20) (N300K)
- 11 ECHO LEVEL Control (20) (N300K)
- 12 PHONES jack (17, 21)
- 13 FUNCTION button (9, 12, 20)

Tape player section



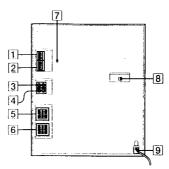
- ☐ (front side play)
- (reverse side play) buttons (12)
- 2 >> (fast rightward)
- ◄ (fast leftward) buttons (12)
- [3] (stop) button (12)
- 4 III (pause) button (deck B only) (12)
- 5 HIGH SPEED DUBBING button (16) 6 CD SYNCRO button (13)
- 7 REC button (deck B only) (13)
- 8 DIRECTION MODE button (12) 9 DOLBY NR selector (12)
- 10 EJECT button (12)
- [1] Cassette compartments (12)
- 12 DECK SELECT button (12)
- 13 TAPE button (12)
- 14 ◀◀ TAPE REWIND button (12)

CD player



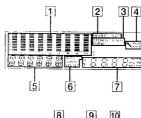
- 3 (stop) button (7, 20)
- 4 II (pause) button (7)
- 5 Disc tray (7) 6 △ OPEN/CLOSE button (7, 14)
- 7 PLAY MODE button (8)
- 8 REPEAT button (9)
- 9 CD button (8, 14)

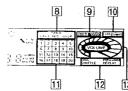
Rear Panel



- [1] FM 75Ω terminal (4)
- [2] AM terminal (4)
- 3 PHONO IN tacks (4)
- 4 VIDFO IN jacks (20)
- [5] SPEAKER connectors (4)
- 6 SURROUND SPEAKER connectors
- (1, 20)
- [7] A ground terminal (4)
- 8 VOLTAGE SELECTOR* (5)
- ;9] AC power cord (5)
- *Except for Malaysian model

Display Window





- [1] Spectrum analyzer (18)
- [2] Tape direction indications (12)
- [3] Tuner indication (10)
- [4] KARAOKE indication (21)
- [5] Band/disc/track indications (7, 10, 14, 18, 19)
- [6] AUTO/TUNING/PRESET/STEP indication (10)
- [7] Frequency/playing time indications (6, 7, 12, 14, 18, 20)

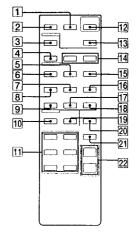
[8] TIMER DAILY/REC/SLEEP indications

12 CD play mode indication (7) 13 VOLUME indication (7)

10 SURROUND indication (18) 11 Music calendar (7)

[9] DBFB indication (17)

Remote



- 1 DISPLAY button (6)
- [2] FUNCTION button (9)
- 3 BAND button (10, 15) 4 STEREO/MONO button (10)
- 5 REPEAT button (9)
- [6] CD PLAY button (9)
- [7] SHUFFLE button (8)
- 8 CONTINUE button (7)
- [9] CHECK button (9)
- 10 TAPE PLAY button (12)
- [1] CD/TAPE operating buttons (play) (8, 12)
 - ◄ (fast leftward)/
- ►► (fast rightward) (12) Idd / ▶►I AMS* (8)
- 11 (pause) (8, 12)
- (stop) (8, 12)
- * AMS: Automatic Music Sensor.
- [12] SYSTEM POWER button (8)
- 13 SLEEP button (19)
- 14 PRESET (+/-) buttons (10, 20) 15 DISC SKIP button (You cannot use this
- button with this model)
- [16] PROGRAM button (9)
- 17 CLEAR button (9)
- 18 EDIT button (14) 19 DECK SELECT button (12)
- 20 PRESET EQ button (17)
- 21 P.FII.E button (18)
- 22 VOL (volume) buttons (7, 17, 20)

GENERAL

ECTION

This section is extracted from instruction manual.

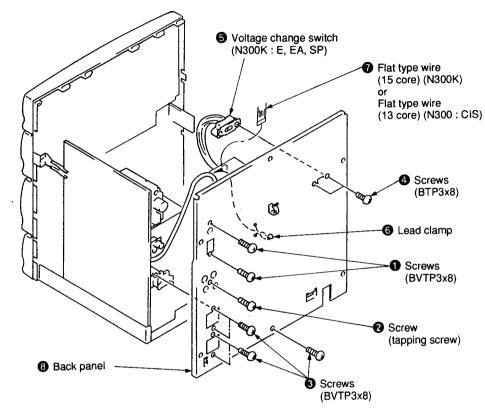
SECTION 3 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

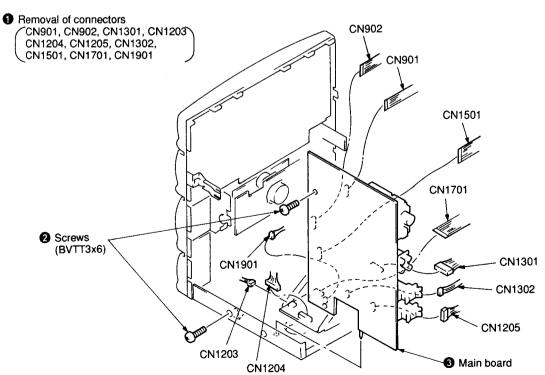
3-1. BACK PANEL

Abbreviations

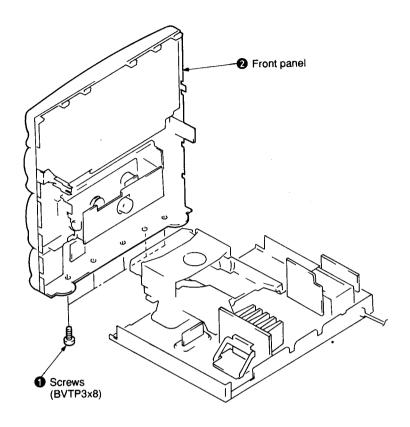
EA : Saudi Arabia model. SP : Singapore model.



3-2. MAIN BOARD

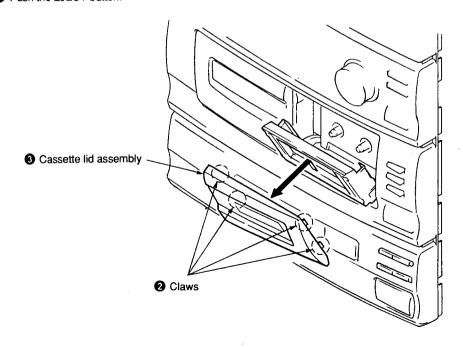


3-3. FRONT PANEL

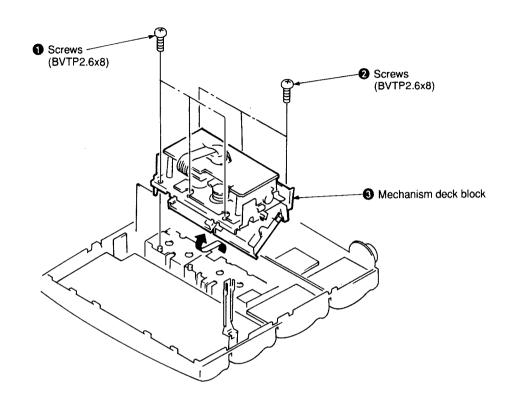


3-4. CASSETTE LID ASSEMBLY

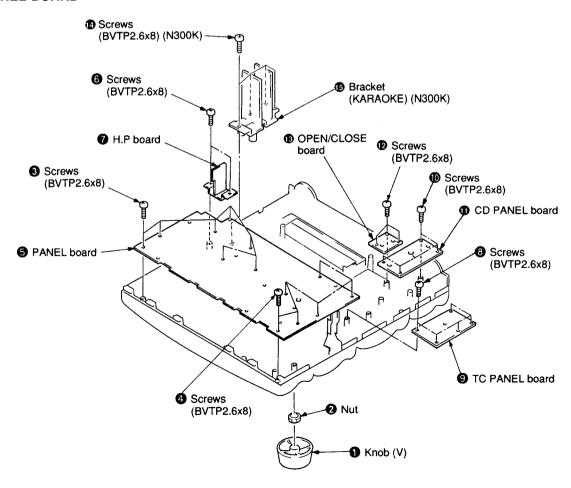
1 Push the EJECT button.



3-5. MECHANISM DECK BLOCK



3-6. PANEL BOARD

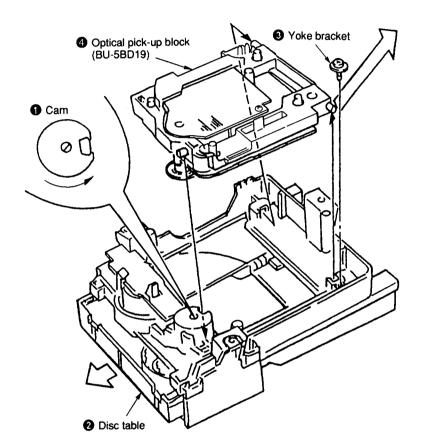


3-7. OPTICAL PICK-UP BLOCK

- 1 Turn the cam to the direction of arrow (Counter clokwise) by minus screw driver.

 2 Take off the disc table.

- 3 Remove the yoke bracket.
 4 Remove the optical pick-up block (BU-5BD19) to the direction of arrow.



SECTION 4 MECHANICAL ADJUSTMENTS

PRECAUTION

Clean the following parts with a denatured alcoholmoistened swab:

> record/playback heads erase head

pinch rollers rubber belts

capstan

idlers

- 2. Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Mesurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	36 to 61g • cm
FWD back tension	CQ-102C	2 to 6g • cm
REV	CQ-102RC	36 to 61g • cm
REV back tension	CQ-102RC	2 to 6g • cm
FF/REW	CQ-201B	61 to 143g • cm
FWD tension	CQ-403A	1kg • cm or more
REV tension	CQ-403R	1kg • cm or more

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775V

- Demagnetize the record/playback head with a head damagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- 6. The adjustments should be performed for both L-CH and R-ch.
- Switches and controls should be set as follows unless 7. otherwise specified.

TAPE SELECT switch: TAPE I

DOLBY NR switch : OFF (Except E model)

Set to test mode. (Press key switch sometime DISPLAY), FUNCTION and POPS/2 button.)

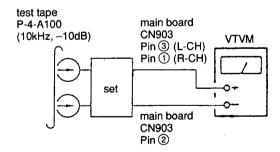
Таре	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment

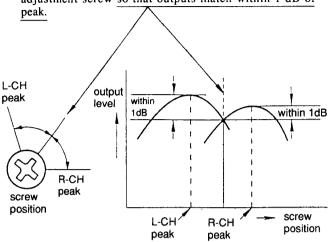
DECK A DECK B

Note: Perform this adjustments for both decks.

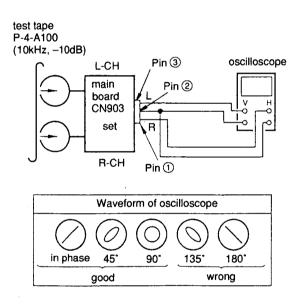
Procedure: 1. Mode: Playback (FWD)



Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of

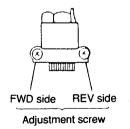


3. Mode: Playback (FWD)



- 4. Repeat steps 1 to 3 in playback (REV) mode.
- After the adjustments, apply suitable locking compound to the parts adjusted.

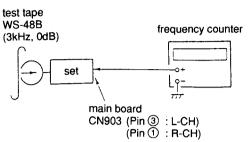
Adjustment Location: Record/Playback Head (Deck A and B)



Tape Speed Adjustment DECK A DECK B

Procedure:

Mode: Playback (FWD)



High speed adjustment

- 1. Press the HIGH SPEED DUBBING button in playback mode. Then at HIGH speed mode.
- 2. Adjust RV652 on the MD board so that the frequency counter reads $6,000 \pm 30$ Hz.

Normal speed adjustment

- 1. Set to the playback mode.
- 2. Adjust RV651 on the MD board so that the frequency counter reads $3,000 \pm 15$ Hz.

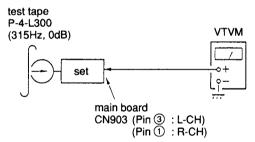
Frequency difference between deck A and deck B the beginning of the tape should be within $\pm 1.5\%$.

Adjustment Location: MD board

Playback Level Adjustment DECK A DECK B

Procedure:

Mode: Playback (FWD)



Deck A side RV311 (L-CH), RV411 (R-CH) on the MD board Deck B side RV301 (L-CH), RV401 (R-CH) on the MD board so that the limits below are satisfied.

Adjustable limits:

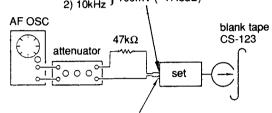
CN903 PB level: 301.5 to 338.3 mV (-8.2 to -7.2 dB) level difference between the channels: within ±0.5 dB Adjust Location: MD and main boards

Record Bias Current Adjustment DECK B

Procedure:

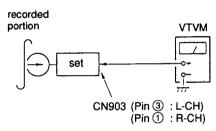
1. Mode: record

Pin (6) (L-CH) of IC901 on the main board.
Pin (3) (R-CH) of IC901 on the main board.
1) 315Hz
2) 10kHz
1 100mV (-17.8dB)



Pin ② (GND) of CN903 on the main board.

2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

If these levels do not adjustable limits, adjustment the RV341 (L-CH) and RV441 (R-CH) on the MD board to repeat steps 1 and 2.

Adjustable limits: Playback output of 315 Hz to playback

output of 10 kHz: 0±0.5 dB

Adjustment Location: MD and main boards

Record Level Adjustment DECK B

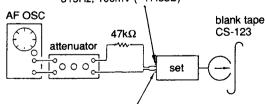
Setting:

TAPE SELECT switch: TYPE I

Procedure:

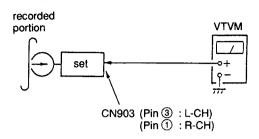
1. Mode: record

Pin (6) (L-CH) of IC901 on the main board. Pin (3) (R-CH) of IC901 on the main board. 315Hz, 100mV (-17.8dB)



Pin 2 (GND) of CN903 on the main board.

2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

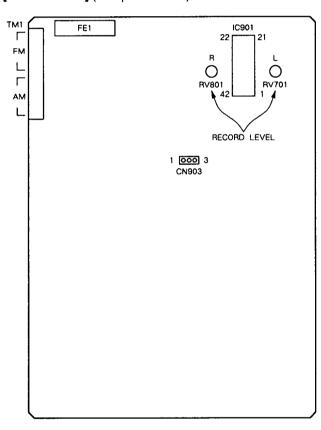
If these levels do not adjustable limits, adjustment the RV701 (L-CH) and RV801 (R-CH) on the main board to repeat steps 1 and 2.

Adjustable limits:

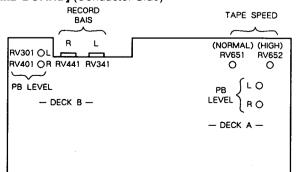
CN903 PB level: 47.3 to 53.1 mV (-24.3 to -23.3 dB)

Adjustment Location: main board

[MAIN BOARD] (Component Side)



[MD BOARD] (Conductor Side)



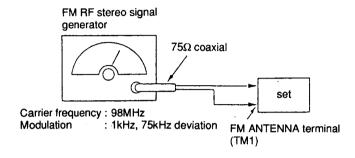
TUNER SECTION

0dB=1μV

Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

FM Section Adjustment

Setting:



FM Tuned Level Adjustment

Band: FM

Procedure:

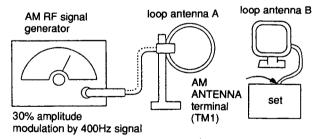
- Supply a 17.8 μV (25dBμ) 98 MHz signal from the ANTENNA terminal.
- 2. Tune the set to 98 MHz.
- 3. Adjust RV2 so that the TUNED indicator goes on.

Adjustment Location: main board

 Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

AM Section Adjustment

Setting:



AM Tuner Level Adjustment

Band: AM

Procedure :

- 1. Set loop antenna A so that the loop antenna B input level becomes 316 μV (50 dB μ).
- 2. Tune the set to 1050kHz.
- 3. Adjust RV1 so that the TUNED indicator goes on.

Adjustment Location: main board

SW OSC Voltage Adjustment

(Saudi Arabia Model Only) BAND SELECT: SW

Procedure:

- 1. Connect the VOM to JW11.
- Tune the set to 5.95MHz.
- 3. Adjust T2 for 0.9 to 1.1V reading on the VOM.
- 4. Tune the set to 17.90MHz.
- 5. Adjust CT2 for 8.3 to 8.7V reading on the VOM.

SW Tracking Adjustment

(Saudi Arabia Model Only) BAND SELECT: SW

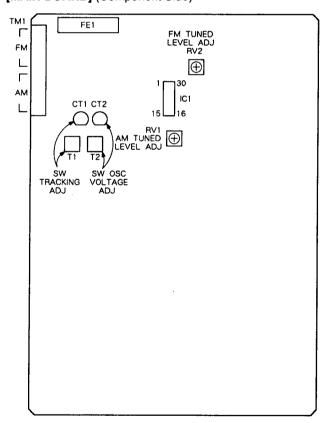
Procedure:

- 1. Connect the VOM to speaker terminal.
- 2. Adjust for a maximum reading on VOM.

Signal generator and Set frequency	Adjustment part
7.0MHz	T1
17.0MHz	CT1

Adjustment Location: main board

[MAIN BOARD] (Component Side)



SUBCARRIER ADJUSTMENT (CIS Model only)

SWITO		Function Selector : TUNER Band Selector : FM STEREO/MONO : MONO			
SIGN/ GENE	AL RATOR	69 MHz, 60 dB, FM modulated (MONO SIGNAL)			
STEP	TEST STAGE	FM SIGNAL AD- TUNING GENERA- FREQUENCY TOR MENT REMARKS			REMARKS
1	fo	69 MHz	1 kHz (10 kHz dev.)		The value in this state should be 0 dB (Vo).
2			31.25 kHz (10 kHz dev.)	L1701	Adjust for maximal output.
3	Q			RV1701	Indication is +14 dB against Vo.

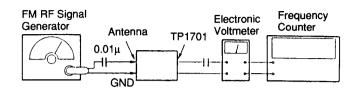


Fig. 1 SUBCARRIER

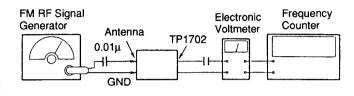


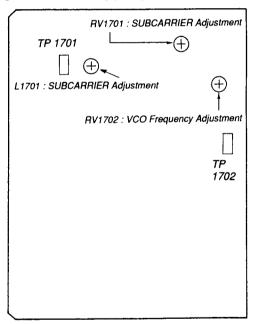
Fig. 2 VCO FREQUENCY

VCO FREQUENCY ADJUSTMENT

SWITCH POSITION	STEREO/MONO : STEREO			
SIGNAL GENERATOR	69 MHz, 60 dB, FM modulated (MONO SIGNAL)			
	FM TUNING FREQUENCY TUNING TREMARKS			
	69 MHz RV1702 Adjust for 31.25 kHz ± 50 Hz.			

Adjustment Location: Polar board

[POLAR BOARD] (Component Side)

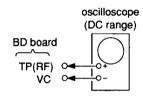


CD SECTION

Note:

- 1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
- Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
- 3. Use an oscilloscope with more than $10M\Omega$ impedance.
- Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
- Adjust the focus bias adjustment when optical block is replaced.

Focus Bias Adjustment

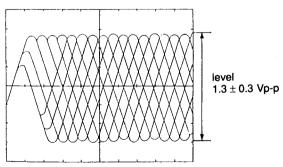


Procedure:

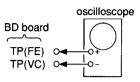
- Connect oscilloscope to test point TP (RF). (GND terminal: VC)
- 2. Turned Power switch on.
- 3. Put disc (YEDS-18) in and playback.
- Adjust RV101 so that the waveform is clear.
 (Clear RF signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.)
- 5. After adjustment, check the RF signal level.

• RF signal

VOLT/DIV: 200 mV TIME/DIV: 500 nS



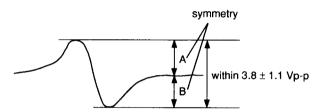
S Curve Check



Procedure:

- Connect oscilloscope to test point TP (FEO).
- Connect between test point TP (FOK) and GND by lead wire.
- 3. Turn Power switch on.
- Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
- 5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3.8±1.1 Vp-p.

S-curve waveform

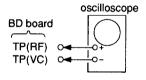


6. After check, remove the lead wire connected in step 2.

Note: • Try to measure several times to make sure than the ratio of A: B or B: A is more than 10: 7.

 Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



Procedure:

- 1. Connect oscilloscope to test point TP (RF) on BD board.
- 2. Turned Power switch on.
- 3. Put disc (YEDS-18) in and playback.
- Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note:

Clear RF signal waveform means that the shape " \Diamond " can be clearly distinguished at the center of the waveform.

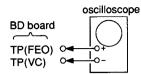
RF signal waveform



VOLT/DIV: 200mV TIME/DIV: 500nS

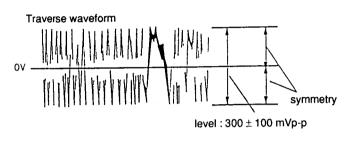
level : 1.3 \pm 0.3 Vp-p

E-F Balance Check



Procedure:

- 1. Connect pin 56 of IC101 to GND with a lead wire.
- 2. Connect oscilloscpe to test point TP (TEO).
- 3. Turned Power switch on.
- 4. Put disc (YEDS-18) in and playback.
- 5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0Vdc, and check this level.



6. Remove the lead wire connected in step 1.

Focus/Tracking Gain Adjustment (RV102, RV103)

This gain has a margin, so even if it is slightly off.

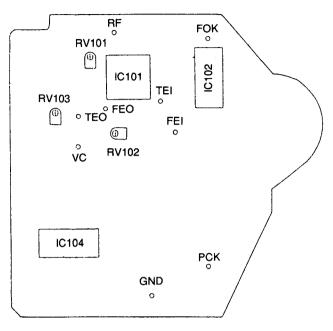
There is no problem.

Therfore, do not perform this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

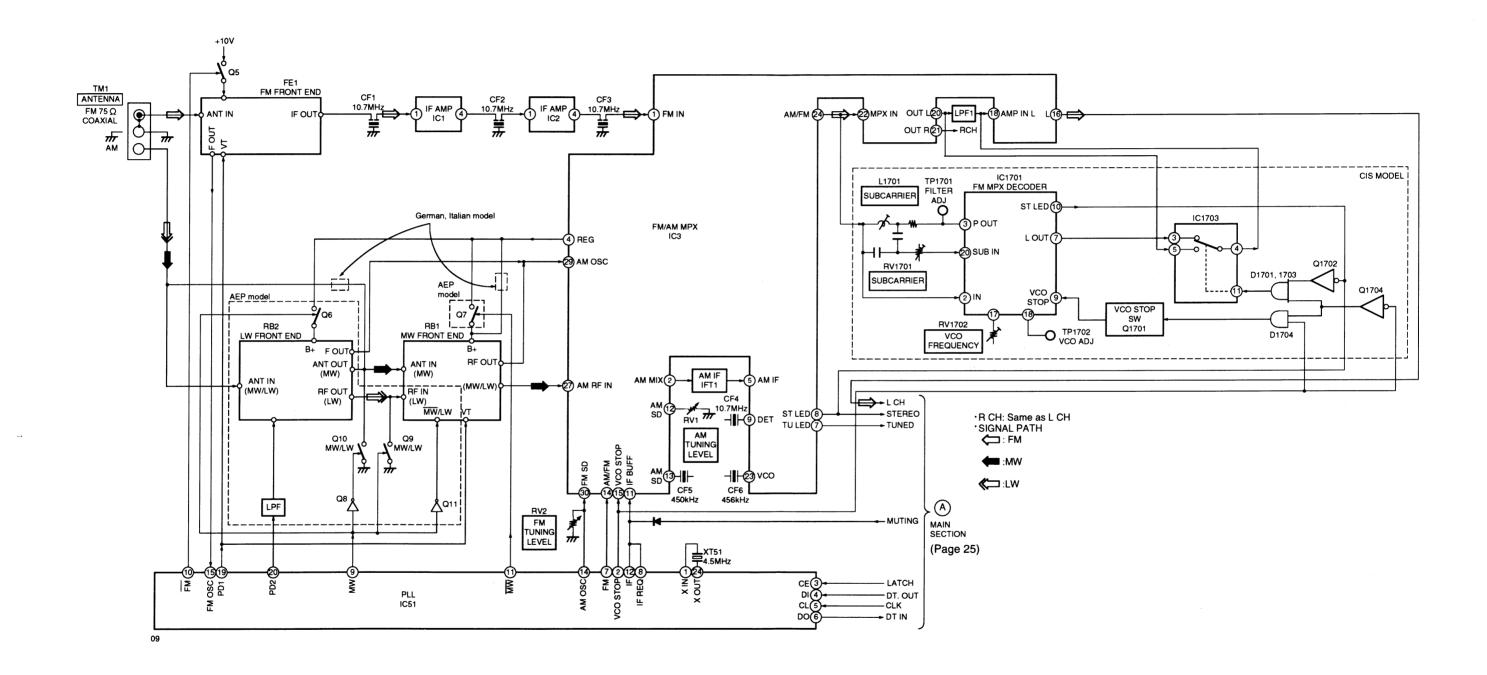
Adjustment Location:

[BD BOARD] (Conductor Side)

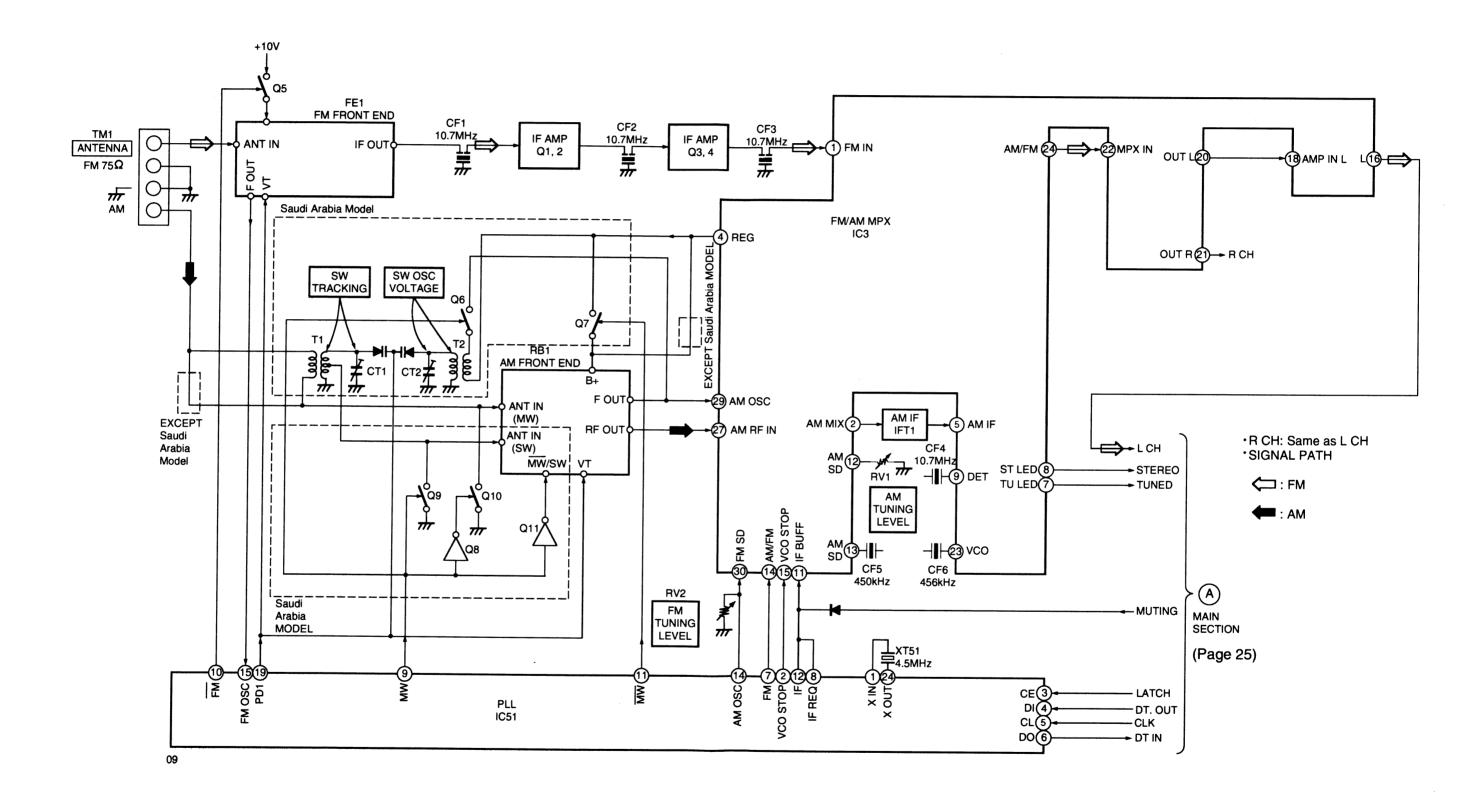


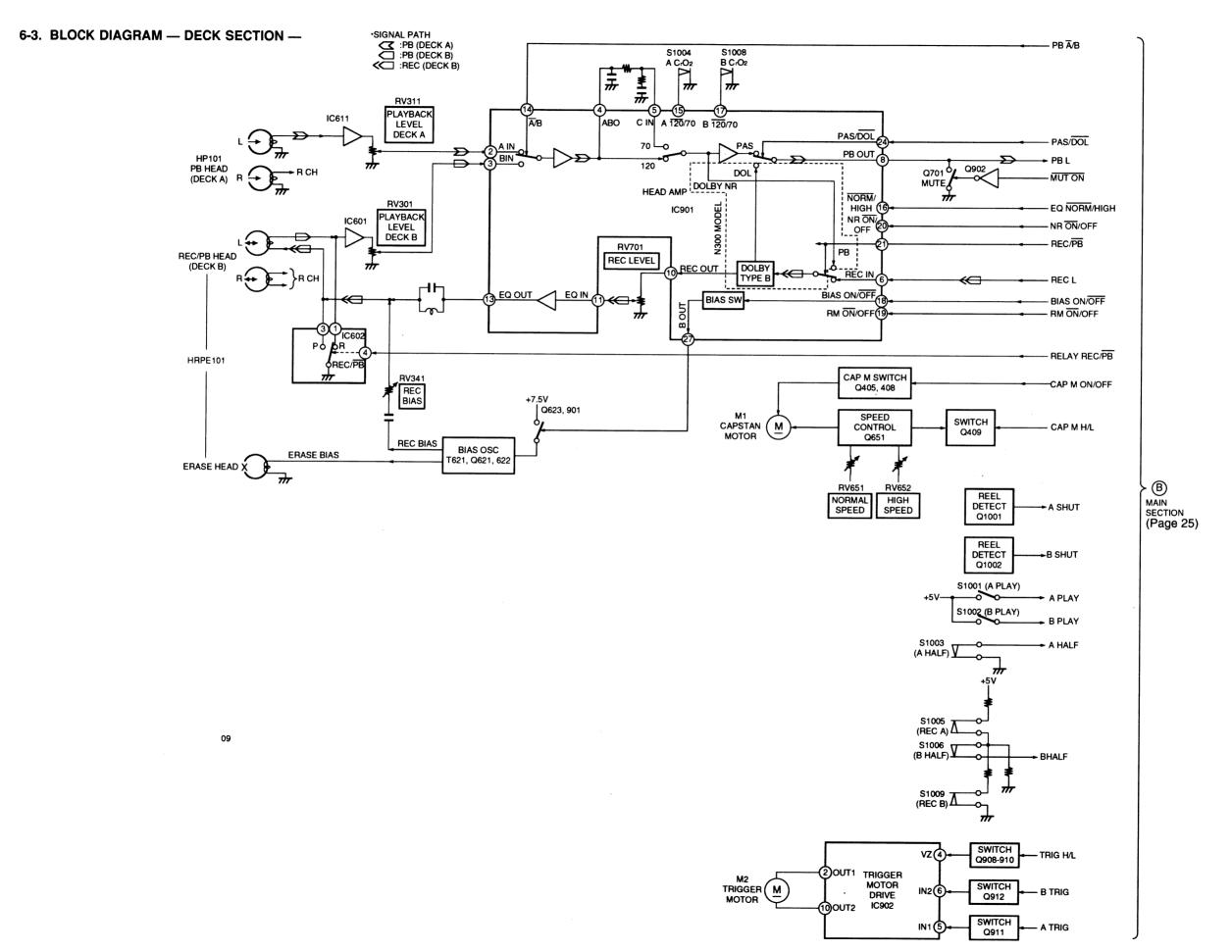
SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAM — TUNER SECTION — (N300 model)

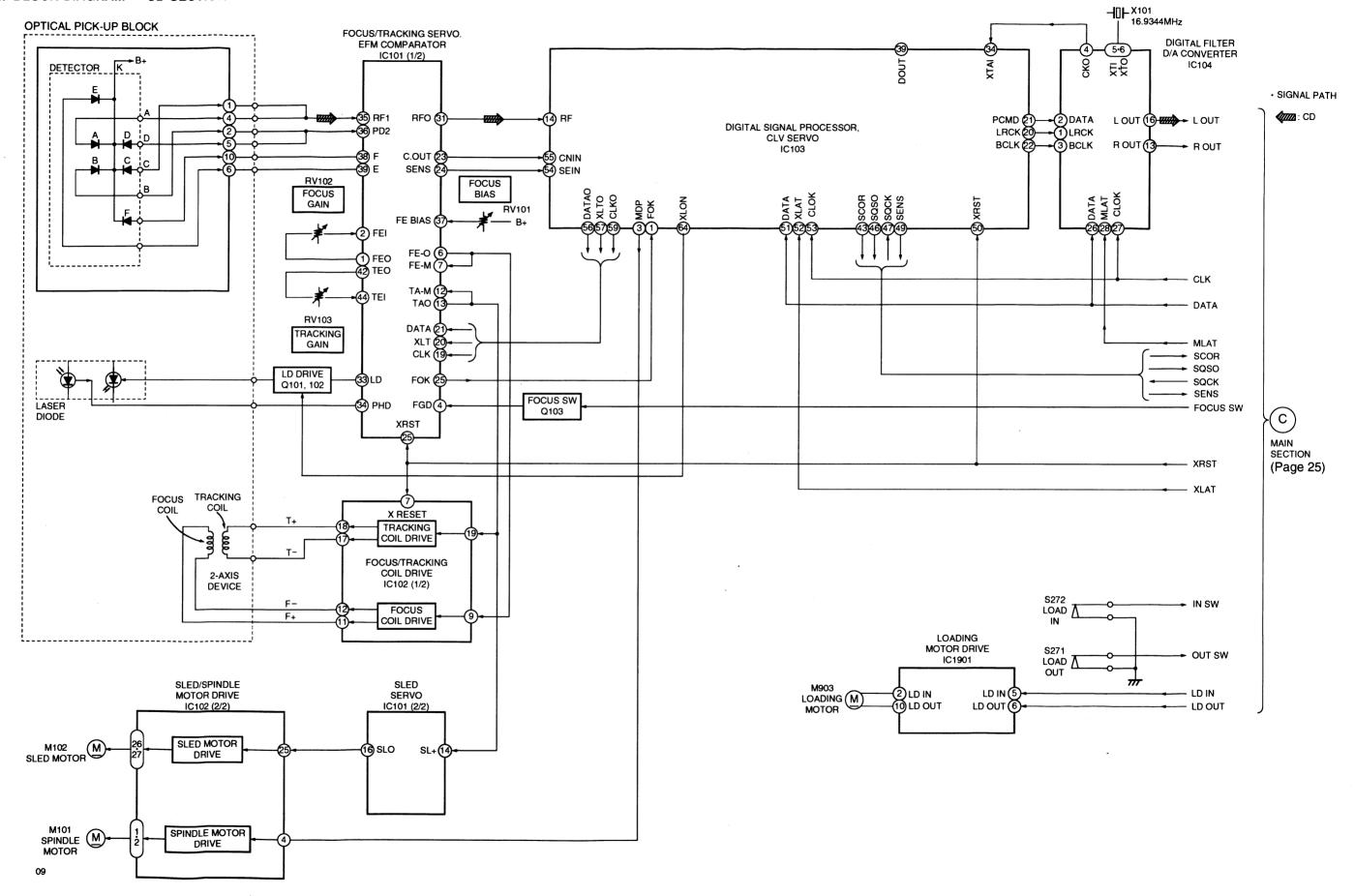


6-2. BLOCK DIAGRAM — TUNER SECTION — (N300K model)





6-4. BLOCK DIAGRAM — CD SECTION —





H

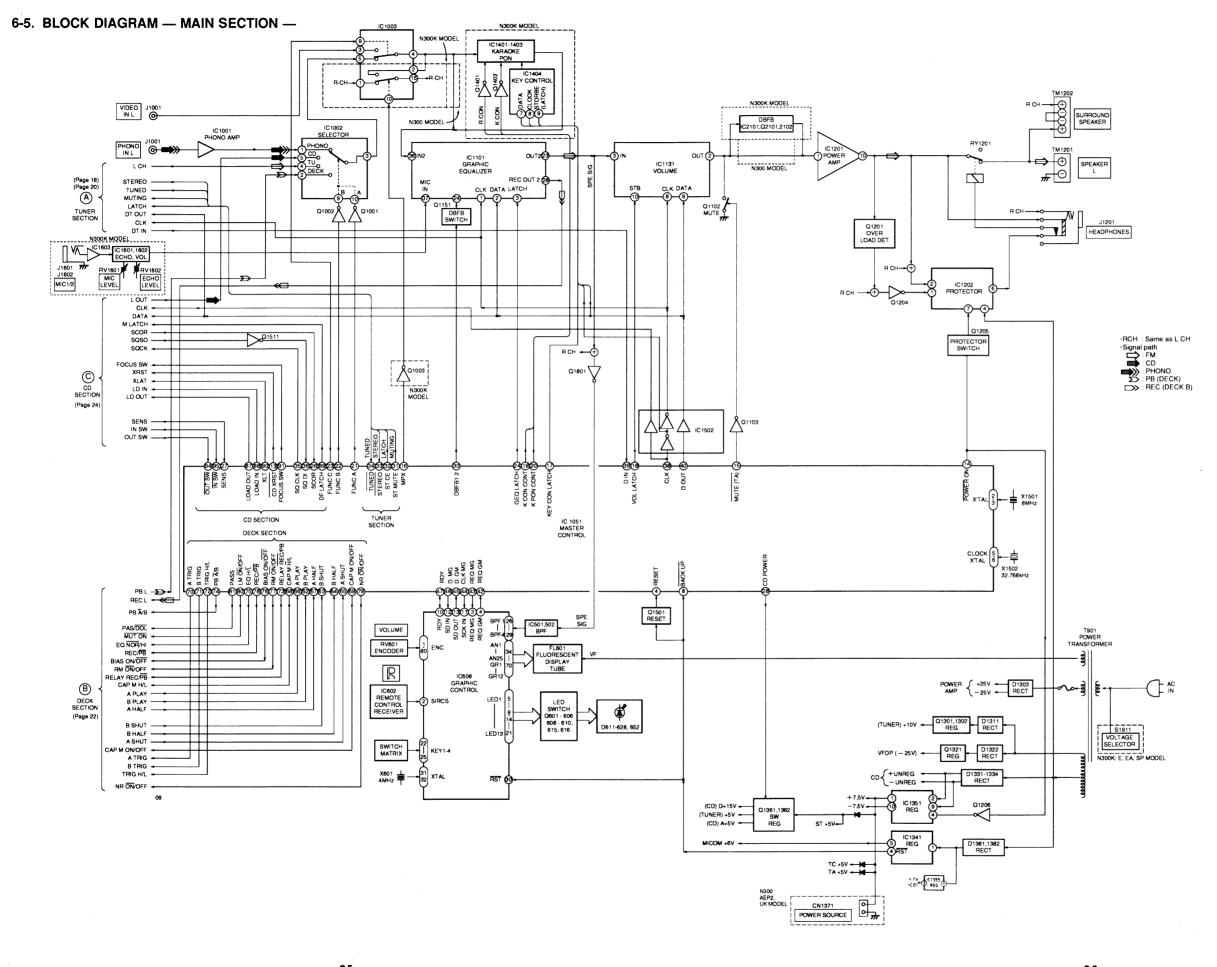
ECH((N300

> N (1

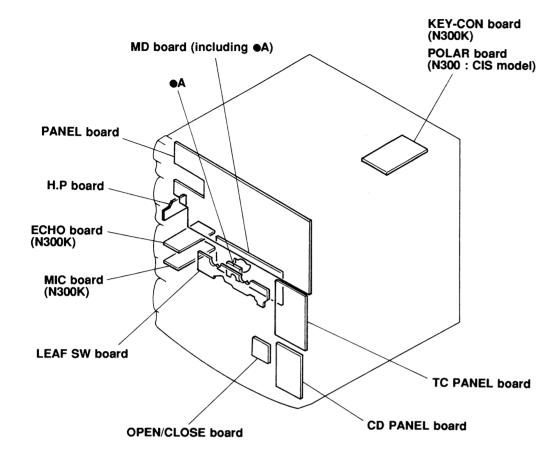
LEA

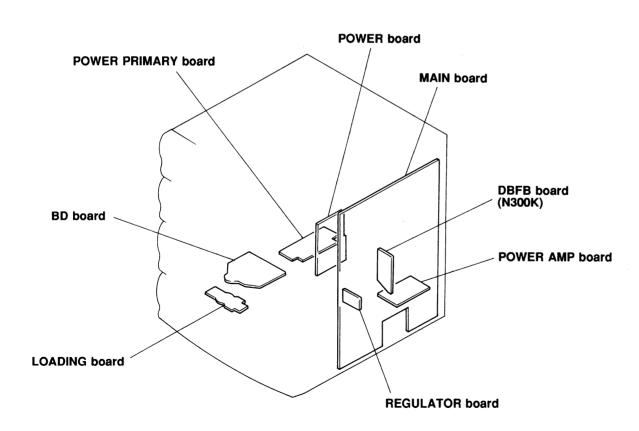
1

LO

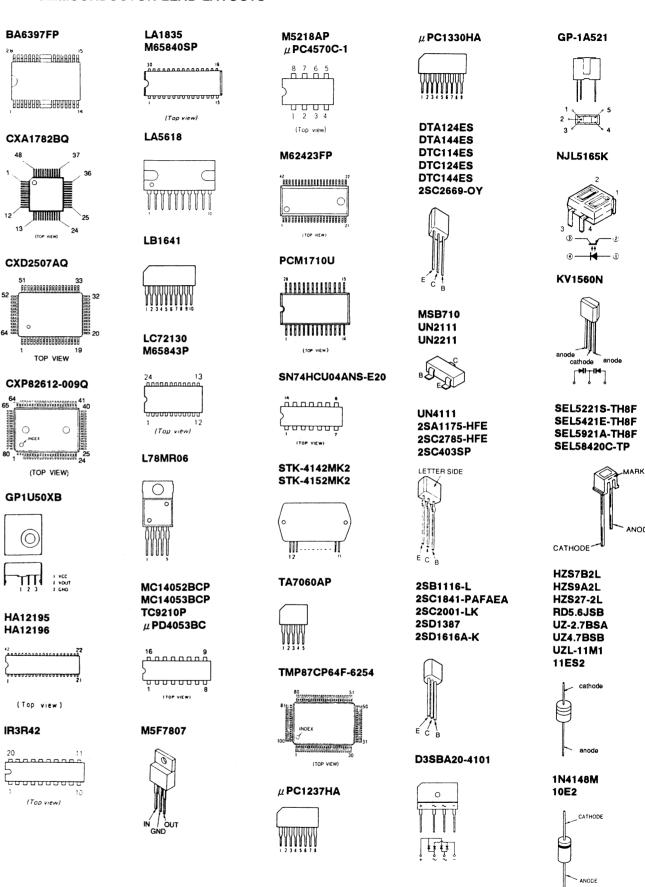


6-6. CIRCUIT BOARDS LOCATION

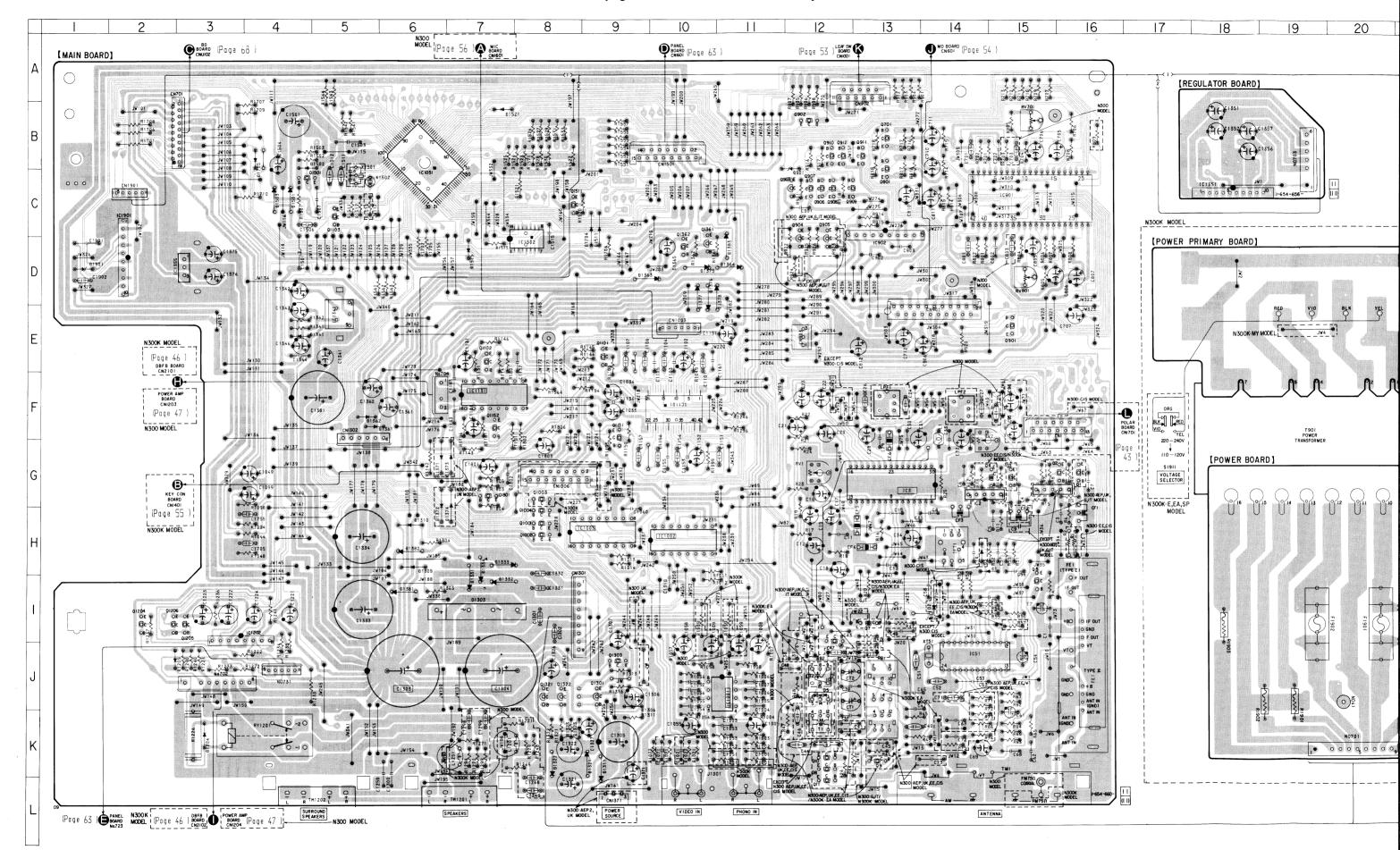


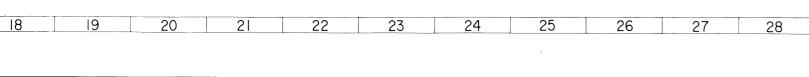


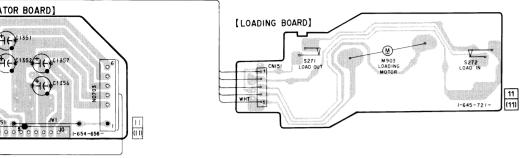
6-7. SEMICONDUCTOR LEAD LAYOUTS

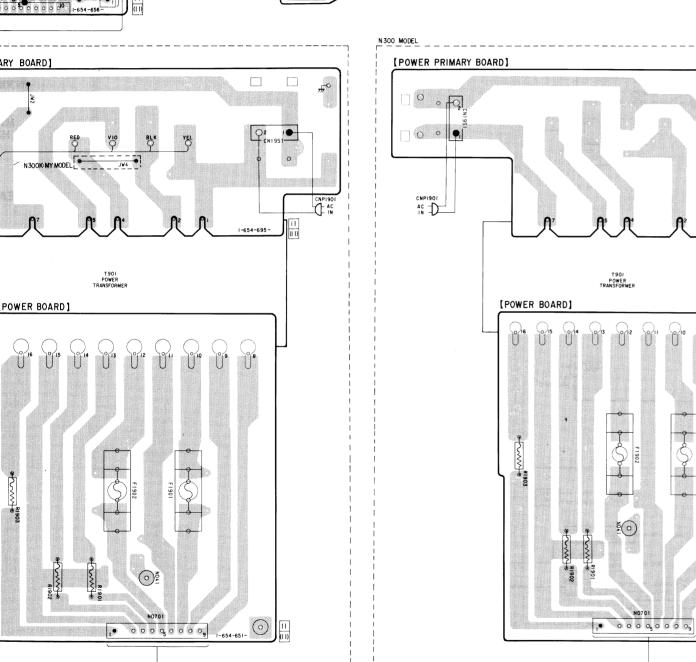


6-8. PRINTED WIRING BOARD — MAIN SECTION — • See page 27 for Circuit Boards Location. • See page 28 for Semiconductor Lead Layouts.







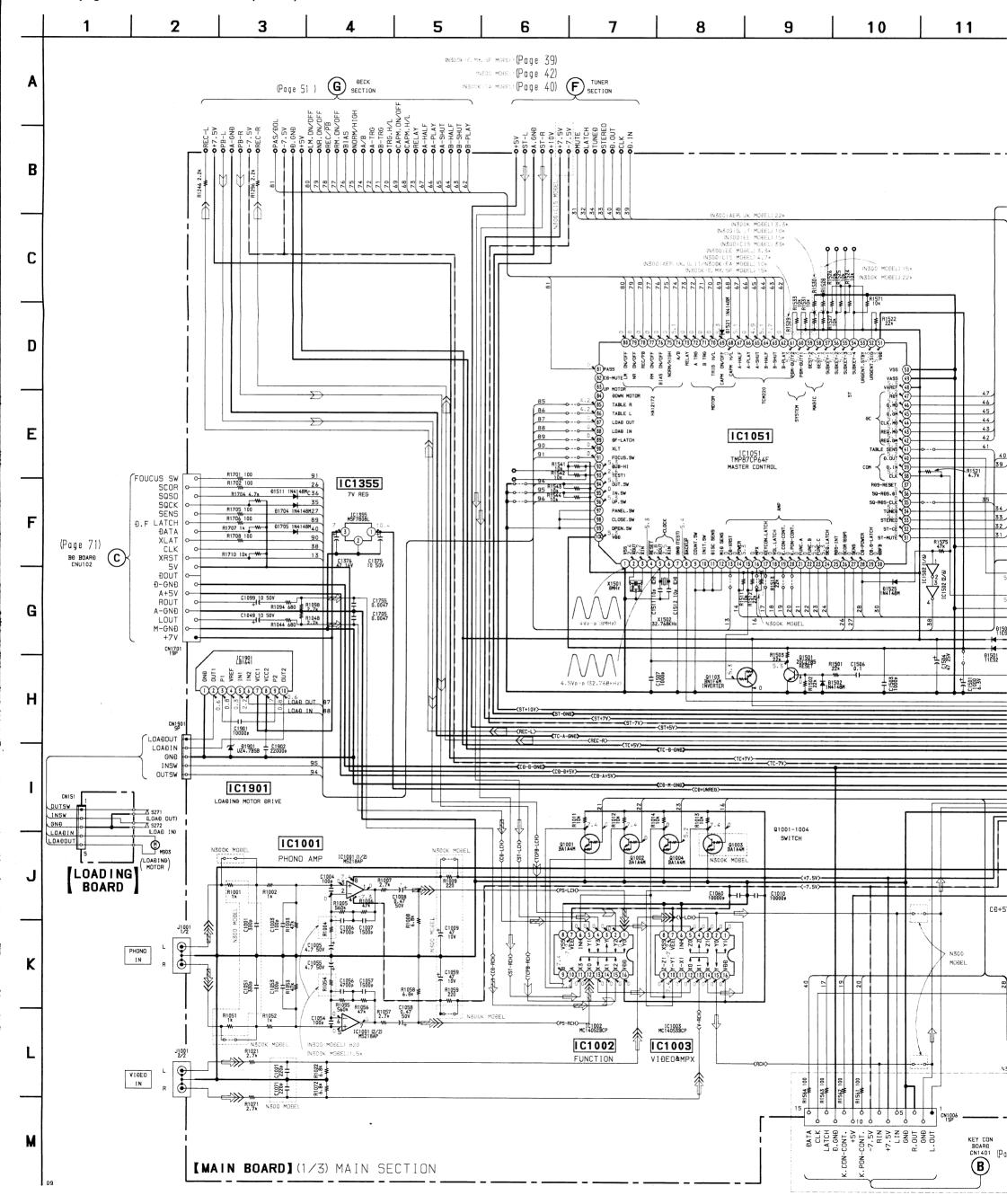


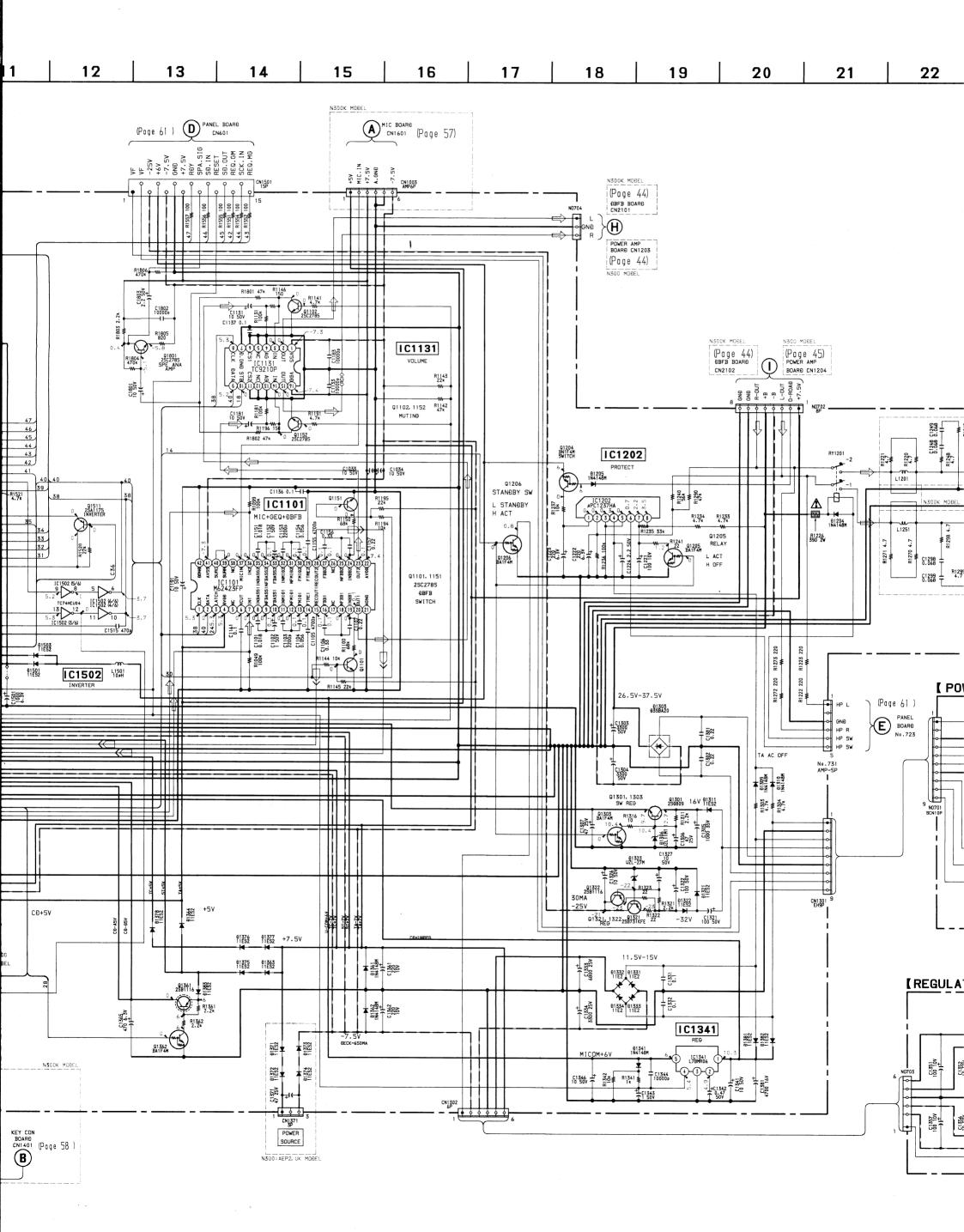
Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1 D2 D3 D5 D901 D1204 D1205 D1303 D1306	H-14 I-14 H-14 J-12 C-12 K-3 J-2 I-7 J-9	IC1101 IC1131 IC1202 IC1341 IC1355 IC1502 IC1901	F-10 F-7 J-4 E-5 D-3 D-8 D-2
D1309 D1310 D1311 D1321 D1322 D1323 D1331 D1332 D1333 D1334 D1341 D1361 D1362	H-6 H-6 K-9 K-8 K-8 I-7 I-7 I-7 E-4 F-5	Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q701 Q801 Q901	G-16 G-15 I-15 I-12 I-13 K-12 K-12 K-12 B-13 C-13 E-15
D1363 D1364 D1371 D1372 D1373 D1374 D1375 D1376 D1377 D1378 D1381 D1382 D1383 D1501 D1502 D1503	D-10 D-11 G-6 G-5 H-6 D-9 E-10 E-10 I-6 H-6 D-111 C-4 C-5 C-4	Q902 Q903 Q904 Q905 Q906 Q907 Q908 Q909 Q910 Q911 Q912 Q1001 Q1002 Q1003 Q1004 Q1101	B-12 C-12 D-12 C-12 C-12 C-12 B-13 B-13 B-12 H-8 H-8 H-8 E-9
D1511 D1521 D1525 D1704 D1705 D1901	C-9 B-7 D-6 C-9 B-4 D-1	Q1102 Q1103 Q1151 Q1152 Q1204 Q1205	F-7 C-5 G-9 G-7 I-2
IC1 IC2 IC3 IC51 IC901 IC902 IC1001 IC1002 IC1003 IC1051	G-16 G-14 G-13 J-14 C-15 D-13 J-11 H-10 H-9 C-6	Q1206 Q1301 Q1303 Q1321 Q1322 Q1361 Q1362 Q1501 Q1511 Q1801	J-9 J-9 J-8 J-8 D-10 D-10 C-4 C-8 H-7

- : parts mounted on the conductor side.
- \(\Delta \) : internal component.
 \(\text{Pattern from the side which enable seeing.} \)
- Abbreviation
- G : German model. IT : Italian model.
- IT : Italian model.
 EE : East European model.
 EA : Saudi Arabia model.
 SP : Singapore model.
 MY : Malaysia model.

- 6-9. SCHEMATIC DIAGRAM MAIN SECTION —
 See page 75 for IC Block Diagrams. (IC1002, 1003, 1101, 1131, 1202, 1351, 1901)
 - See page 77 for IC Pin Functions. (IC1051)





21 **22** 23 24 25 28 **29** 26 27

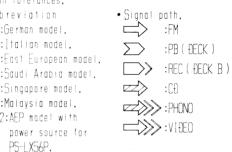
NOTE

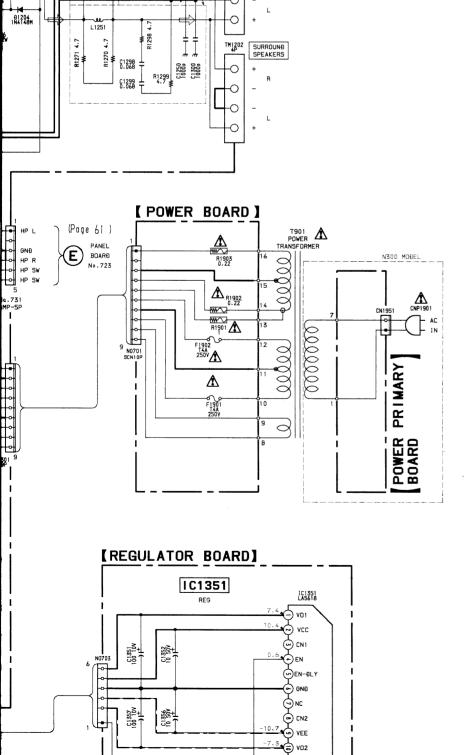
- All capacitors are in μF unless otherwise noted.pF: $\mu \mu F$ -------: B+ Line. 50WV or less are not indicated except for electrolytics -------: B- Line. • All capacitors are in μ F unless otherwise noted.pF: $\mu\mu$ F • ———
- All resistors are in Ω and 1/4W or less unless otherwise under no-signal (deturned) conditions.
- \(\sigma \) :internal component.
- ______:fusible resistor.
- :panel designation.

Note:The components identified by mark 🛧 or dotted line with mark \Lambda are critical for safety. Replace only with part number specified.

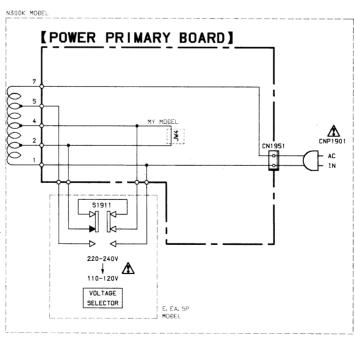
- Voltages and waveforms are do with respect to ground
- Voltages are taken with a VOM([nput impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.



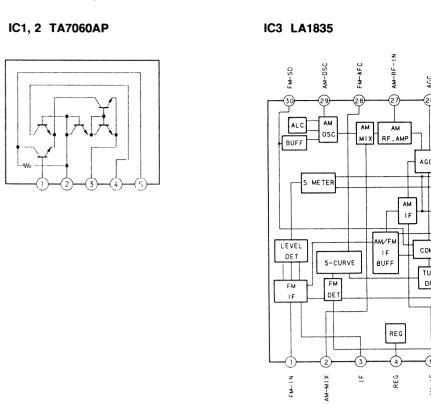




SPEAKERS



· IC Block Diagrams.



1

ANTENNA

FM75₽

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G

Н

NOTE

• All capaci

50W or le

and tantal

• All resist

specified.

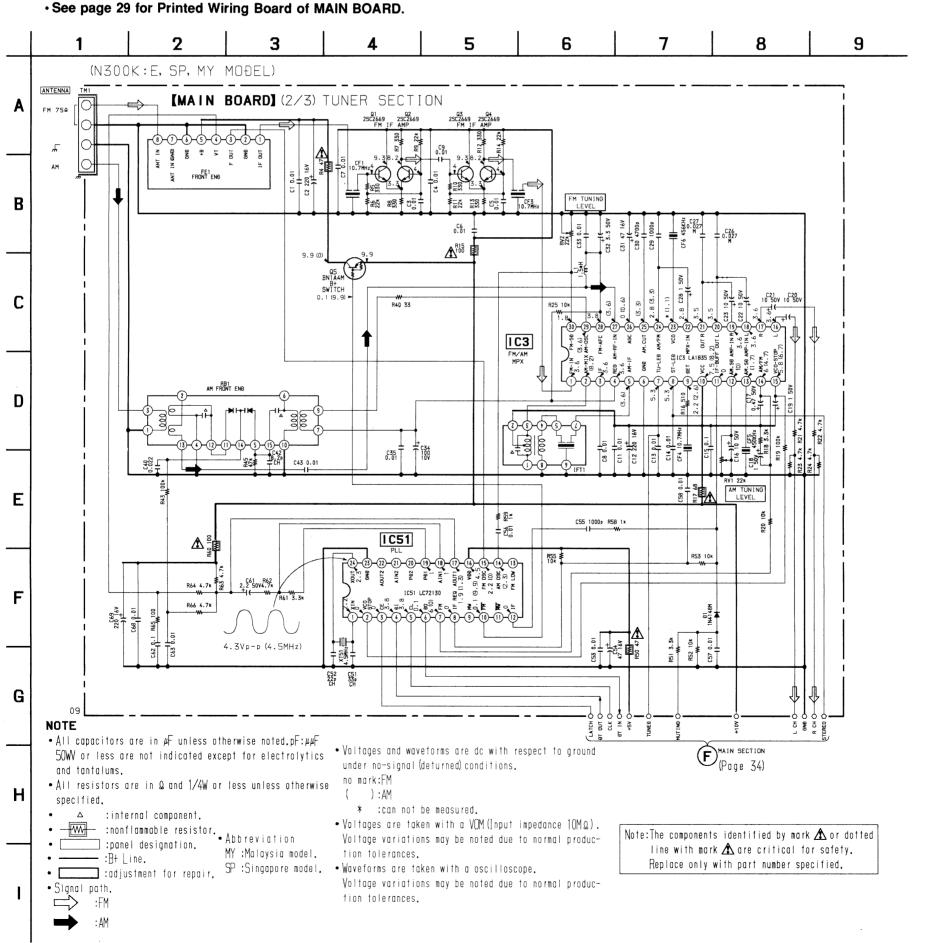
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Note:The c

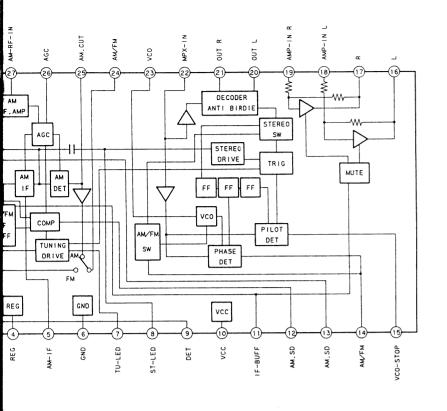
line

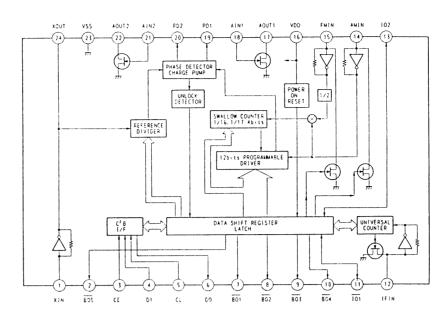
Repla

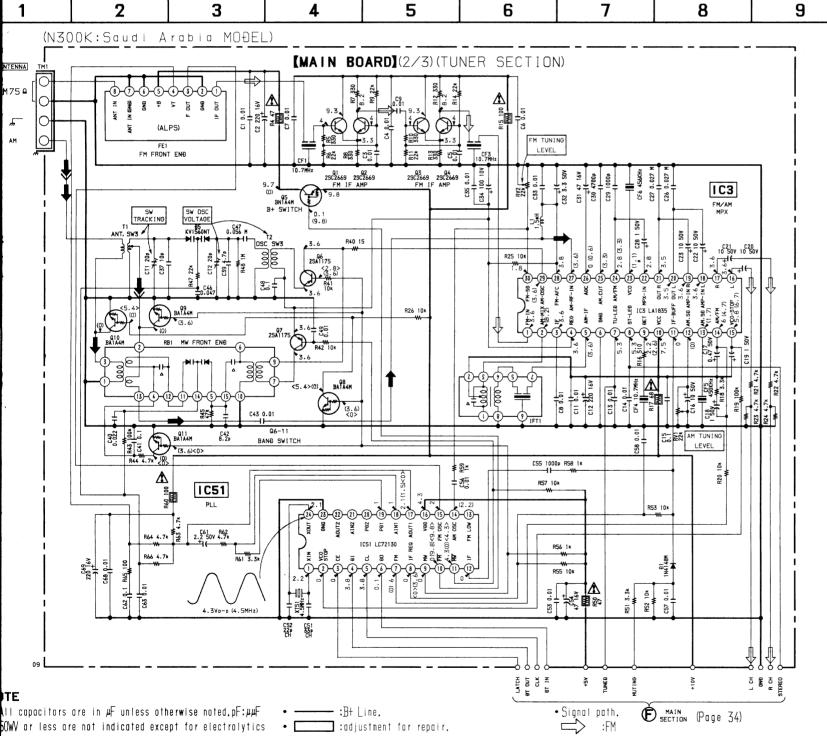
6-10. SCHEMATIC DIAGRAM — TUNER SECTION — · See page 29 for Printed Wiring Board of MAIN BOARD.



IC51 LC72130







(N300 MOĐEL) Α ANTENNA FM 750 COAXIAL В C D Ε F G NOTE 09 • All capacitors are in μF unless otherwise 50WV or less are not indicated except for and tantalums. • All resistors are in Q and 1/4W or less u specified. \(\Delta \) :internal component.
 :nonflammable resistor.
 :ponel designation. Note:The components identified by mark 🛦 line with mark \Lambda are critical for sa Replace only with part number specific

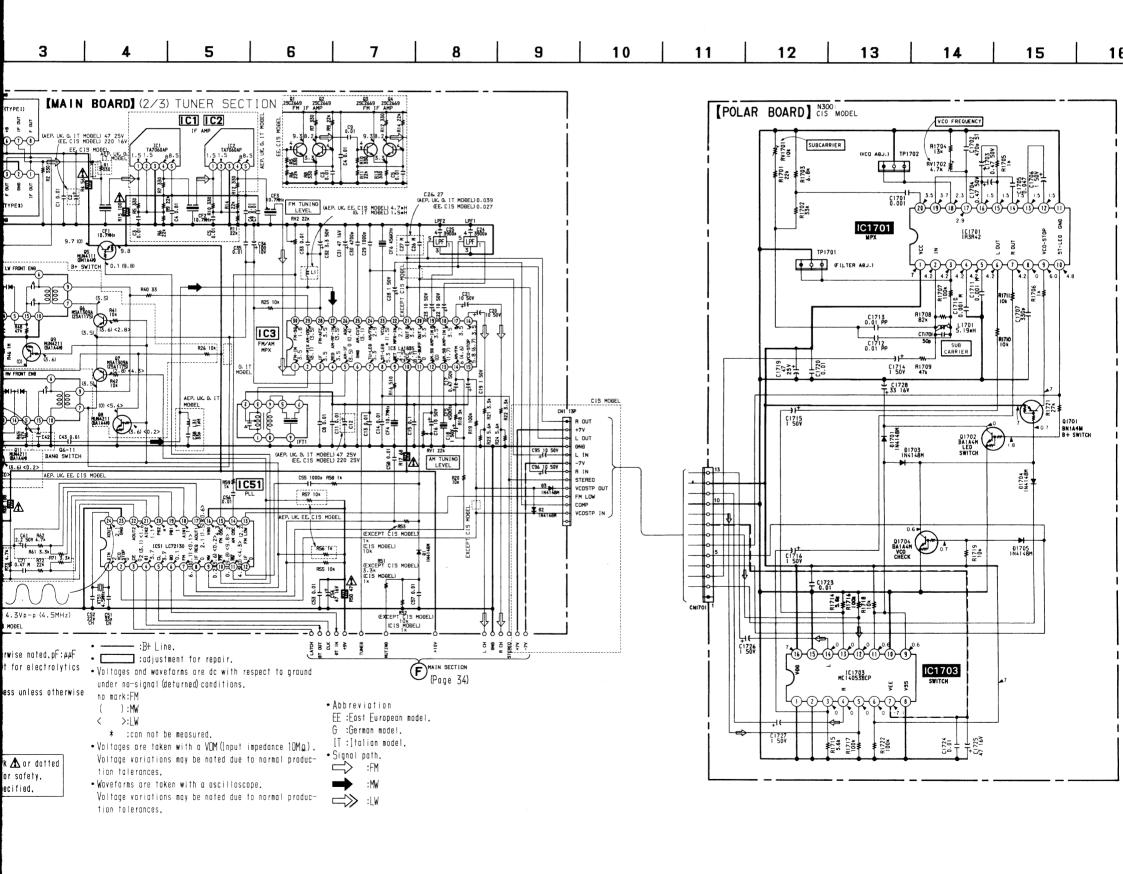
and tantalums.

All resistors are in Q and 1/4W or less unless otherwise pecified.

Note:The components identified by mark 🛕 or dotted line with mark \Lambda are critical for safety. Replace only with part number specified.

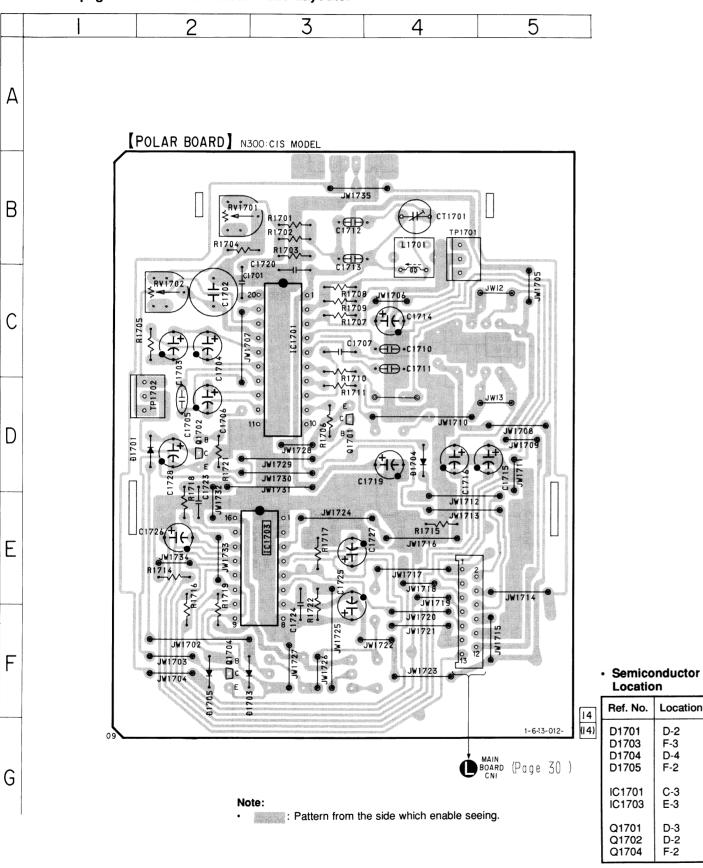
- Voltages and waveforms are dc with respect to ground under no-signal (deturned) conditions. no mark:FM
- ():MW
- < >:SW
- * :can not be measured.
- Voltages are taken with a VOM ([nput impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

:MW

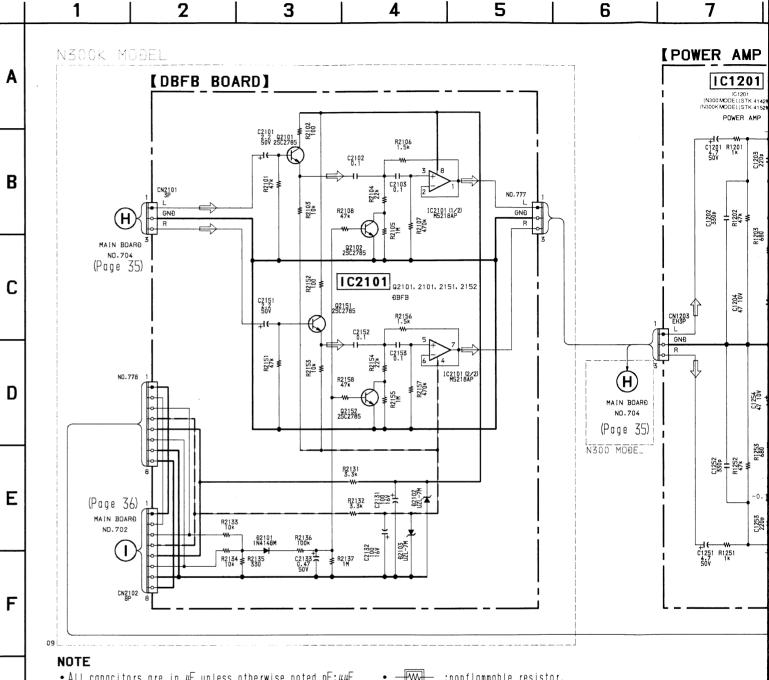


6-11. PRINTED WIRING BOARD — TUNER SECTION —

- See page 27 for Circuit Boards Location.
- · See page 28 for Semiconductor Lead Layouts.



6-12. SCHEMATIC DIAGRAM — AMP SECTION —



• All capacitors are in μF unless otherwise noted.pF:μμF 50WV or less are not indicated except for electrolytics

and tantalums.

• All resistors are in Q and 1/4W or less unless otherwise

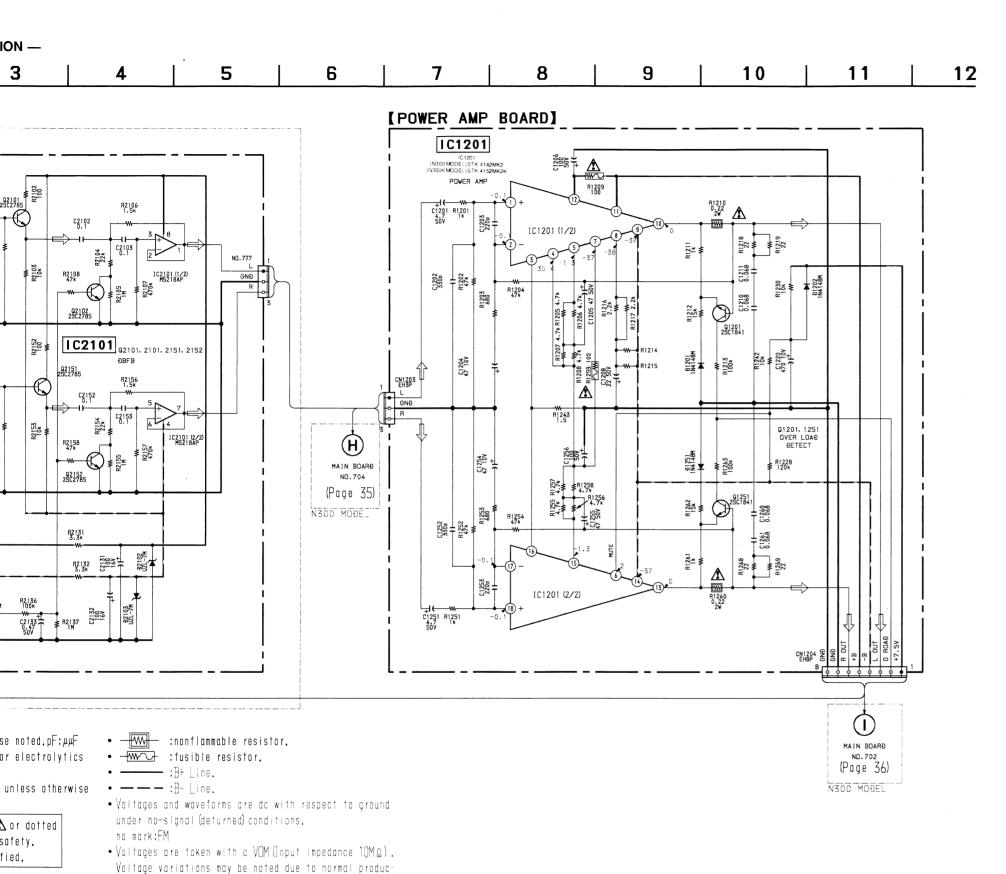
• ————: B- Line.

Note:The components identified by mark 🛧 or dotted line with mark \Lambda are critical for safety. Replace only with part number specified.

G

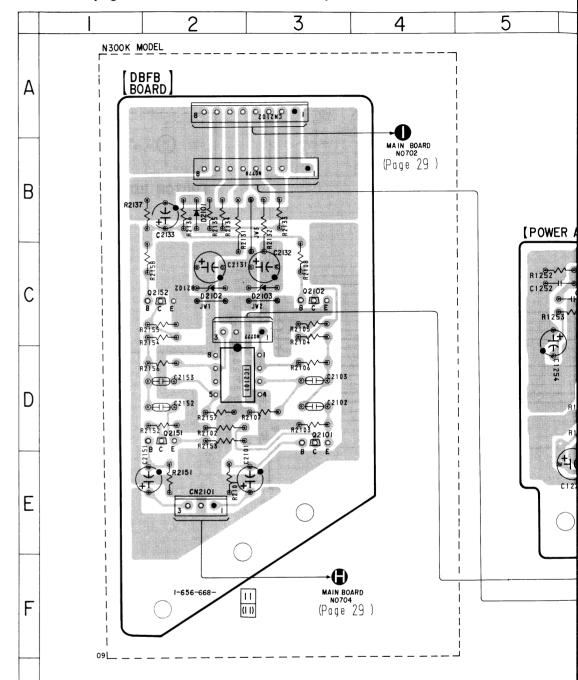
Н

- _____ :nonflammable resistor.
- tusible resistor.
- Voltages and waveforms are dc with respect to ground under no-signal (deturned) conditions.
- Voltages are taken with a VOM (Input impedance $10M\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.



6-13. PRINTED WIRING BOARD — AMP SECTION —

- See page 27 for Circuit Boards Location.
 See page 28 for Semiconductor Lead Layouts.



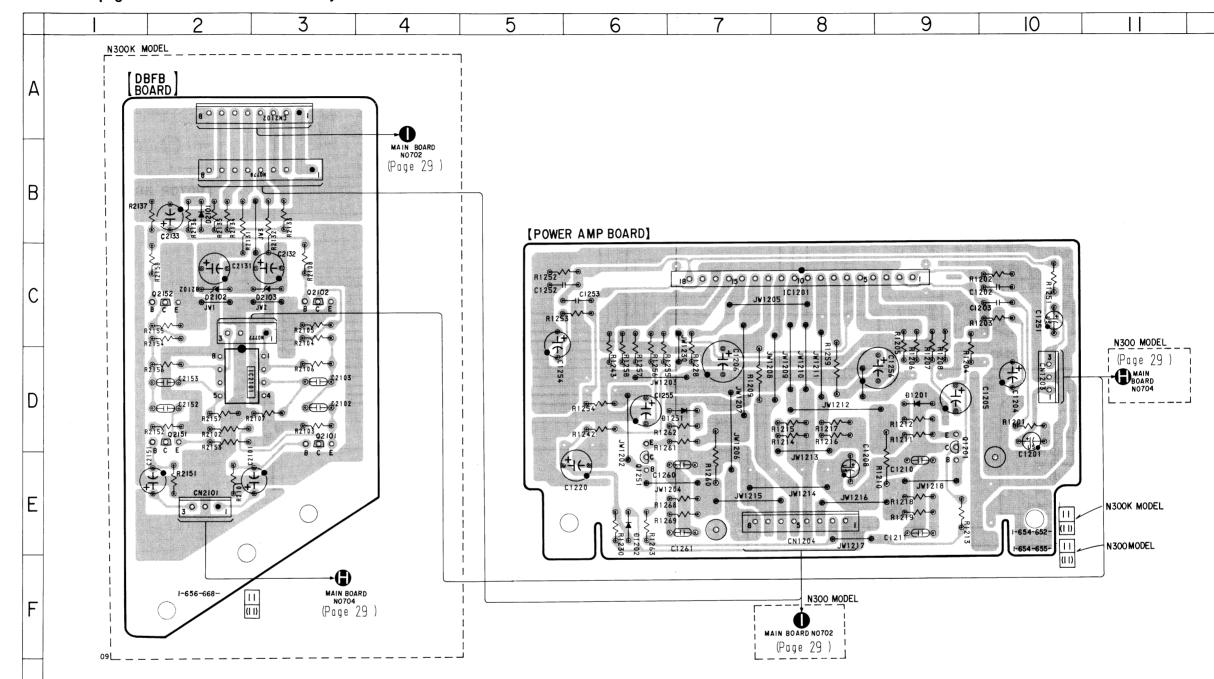
tion tolerances. • Signal path. :FM

6-13. PRINTED WIRING BOARD — AMP SECTION — • See page 27 for Circuit Boards Location. • See page 28 for Semiconductor Lead Layouts.

11

MAIN BOARĐ Np. 702 (Page 36) N300 MOĐEL 12

0



Semiconductor Location

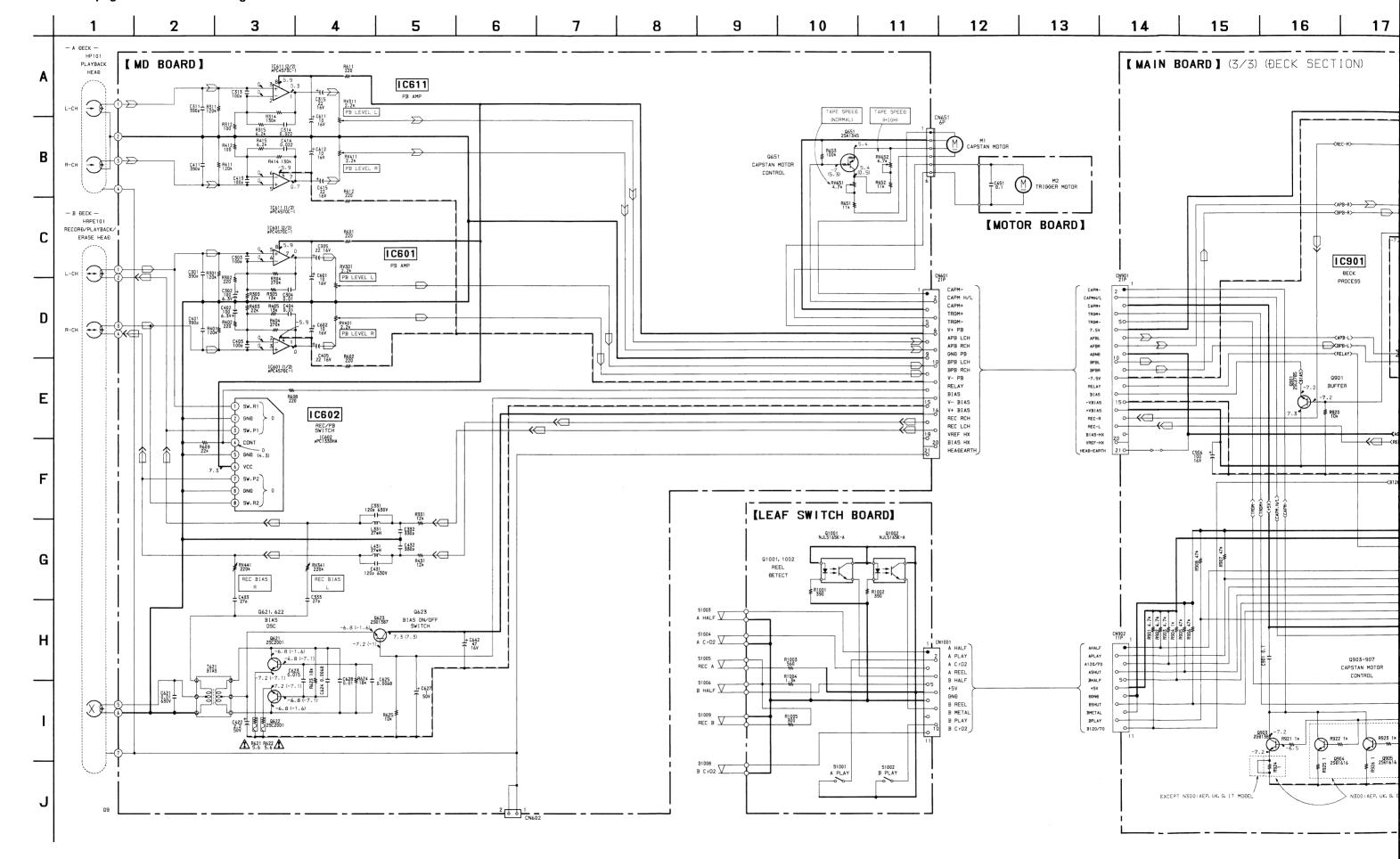
Ref. No.	Location	Ref. No.	Location
D1201 D1202	D-9 E-6	IC2101	D-2
D1251	D-7	Q1201	D-9
D2101	B-2	Q1251	E-6
D2102	C-2	Q2101	D-3
D2103	C-3	Q2102	C-3
		Q2151	D-2
IC1201	C-8	Q2152	C-2

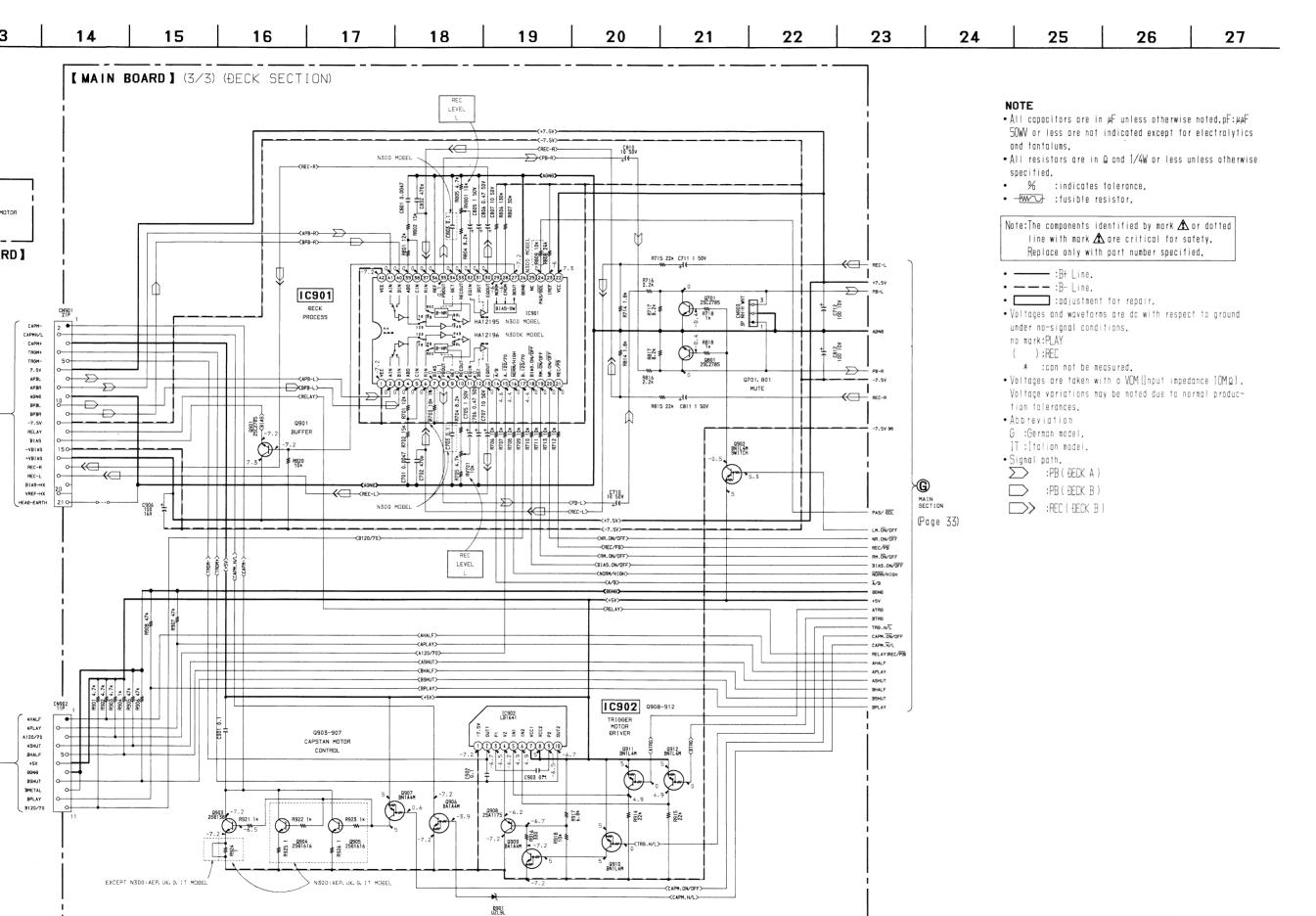
Note:

• Pattern from the side which enable seeing.

6-14. SCHEMATIC DIAGRAM — DECK SECTION —

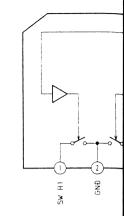
· See page 29 for Printed Wiring Board of MAIN BOARD.



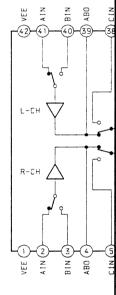


IC Block Diagra

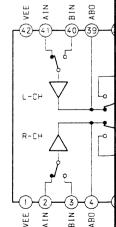
IC602 μPC1330HA



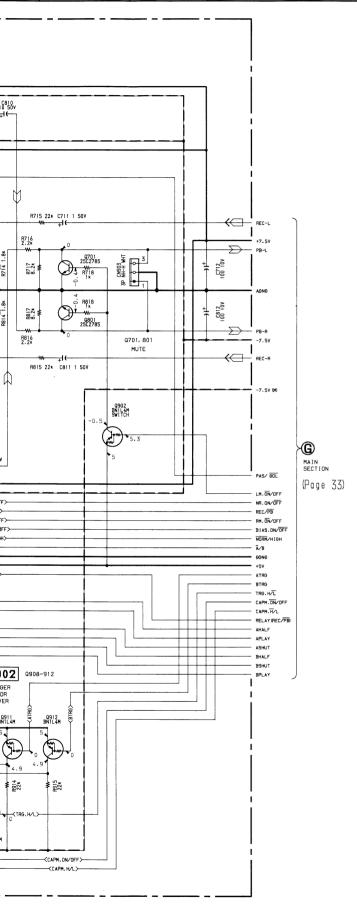
IC901 HA12195



IC901 HA12196



22 23 24 25 26 27



NOTE

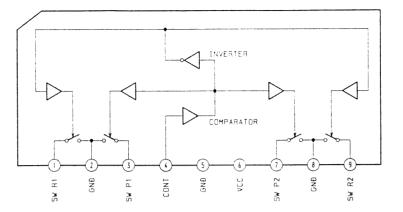
- All capacitors are in μF unless otherwise noted.pF:μμF 50WV or less are not indicated except for electrolytics
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % :indicates tolerance.
- - tusible resistor.

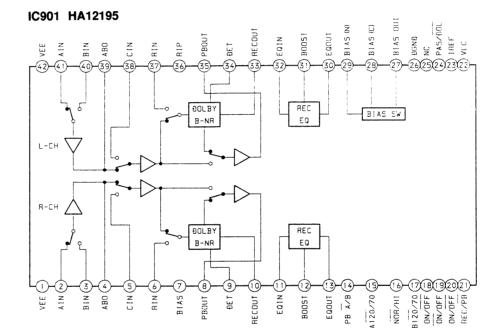
Note:The components identified by mark $lack \Delta$ or dotted line with mark 🛕 are critical for safety. Replace only with part number specified.

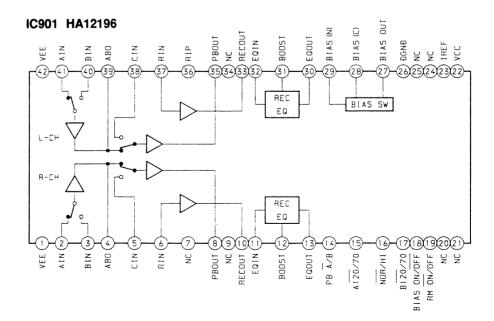
- ----:B+ Line.
- --- :B- Line.
 :adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark:PLAY
- ():REC
- * :can not be measured.
- Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Abbreviation
- G :German model.
- IT :[talian model.
- Signal path.
- ⇒ :PB (ĐECK A)
- ⇒ :PB(⊕ECK B)
- :REC (DECK B)

• IC Block Diagrams.

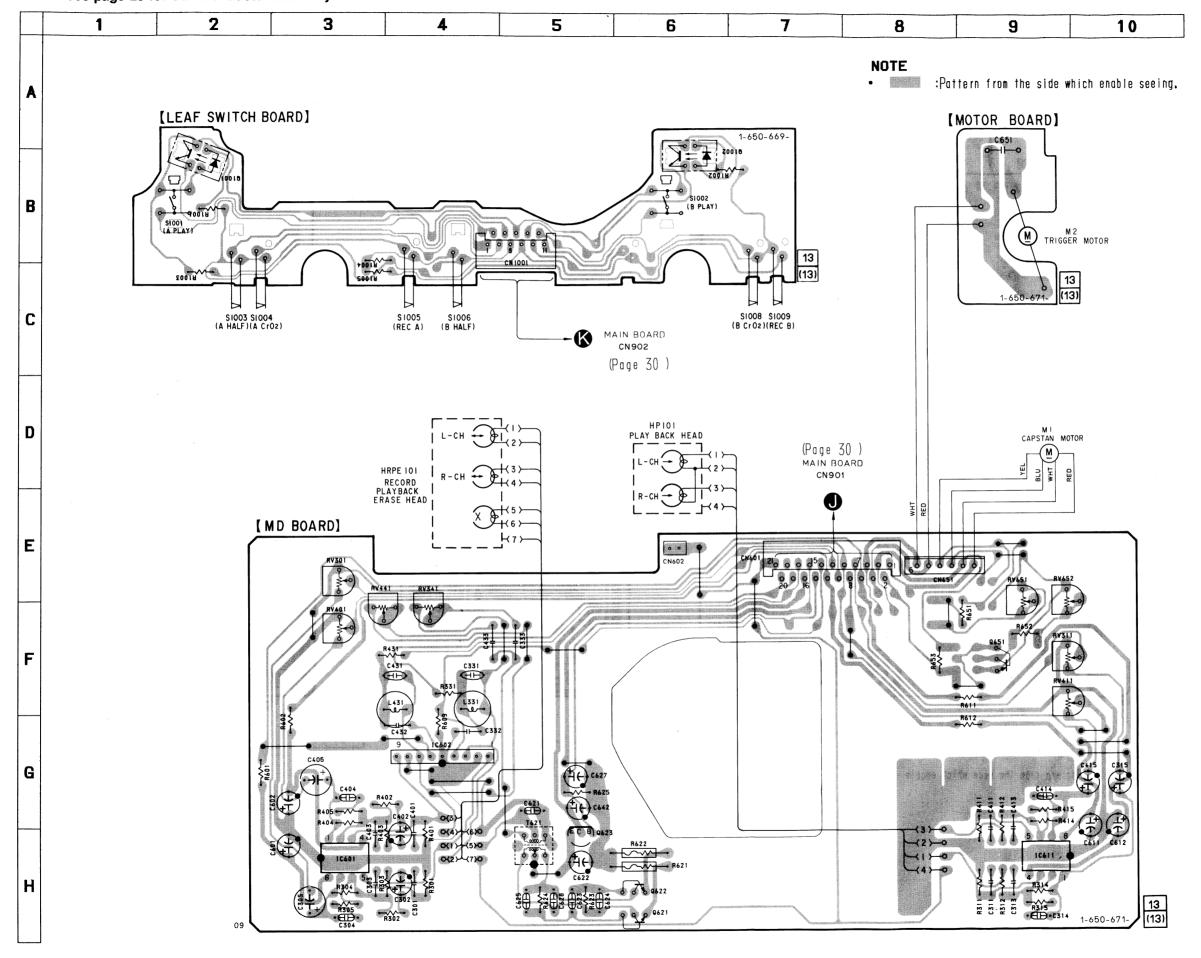
IC602 μPC1330HA







6-15. PRINTED WIRING BOARD — DECK SECTION — • See page 27 for Circuit Boards Location. • See page 28 for Semiconductor Lead Layouts.



Semiconductor Location

Ref. No.	Location
IC601	H-3
IC602	G-4
IC611	H-9
Q621	I-6
Q622	H-6
Q623	H-5
Q651	F-9
Q1001	B-2
Q1002	B-6

 Semiconductor Location

Ref. No. Location

IC1401 C-4 IC1402 C-4 IC1403 E-4 IC1404 D-2 IC1601 C-7 IC1602 E-7 IC1603 D-10

D1601

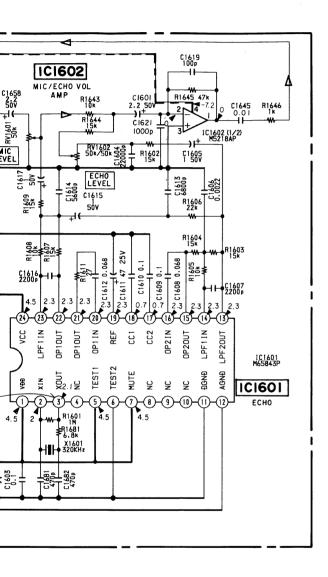
Q1401 Q1402

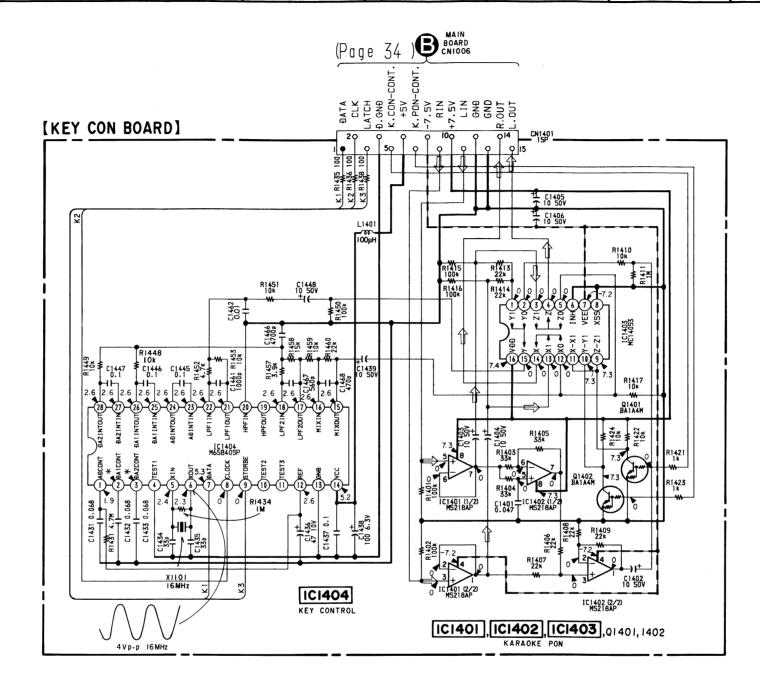
B-8

F-4 F-4

6-16. PRINTED WIRING BOARD — KARAOKE SECTION — (N300K MODEL ONLY) • See page 27 for Circuit Boards Location. • See page 28 for Semiconductor Lead Layouts.

	1	2	3	4	5	6	7	8	9	10	11
A	[KEY CON	N BOARD]				[ECHO BOARD]			[MIC BOARD]		
В		1446 1445 1445 1445 1445 1445 1445 1445				1000000	7/45855	160°)			(Page 29) AMAIN BOARD CNIOO3
С	25-81 0-129-13 25-14-14-14-14-14-14-14-14-14-14-14-14-14-	5711 d - \(\infty\) \(\frac{1}{2}\) \(\frac{1}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}		[IC1401] 0 0 0 40 0 0	Jv12			10914	A CONTROL OF THE CONT	CNI601 JW37 J+ C1646	36 ·
D	©1438	1C1404		R1416 R1414 R1411 R1410 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10 JW10	1 2000	1911 1911 1911 1911 1911 1911 1911 191	200 00 00 00 00 00 00 00 00 00 00 00 00	0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	JW35 JW34 O A1655 R1657 R1642 O R1640 R1641 R1642	07058
E	9AC	V8 C1434	ANS ANS	(C1403)		255 P	O B- \\ R1645 \\ O B- \ O B-	0 60 0705A	1 (1852) 1 (1852) 1 (1851) 1 (1851) 1 (1851) 1 (1851) 1 (1851) 1 (1851) 1 (1851) 1 (1851) 1 (1852) 1 (185	W32	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
F		C1495	CN1401 CN1401 CN1401 CN1401 CN1401	01402 01401 BO BO BO CO BCO EO EO	R1422 C1405	C1620 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	682MT R 10913			0 0 0	0
G	NOTE • :Pat		(Page 29)				3330		J1602 M1C 2		601 C I





:B+ Line.

:B- Line. nd waveforms are dc with respect to ground—tion tolerances. ignal conditions.

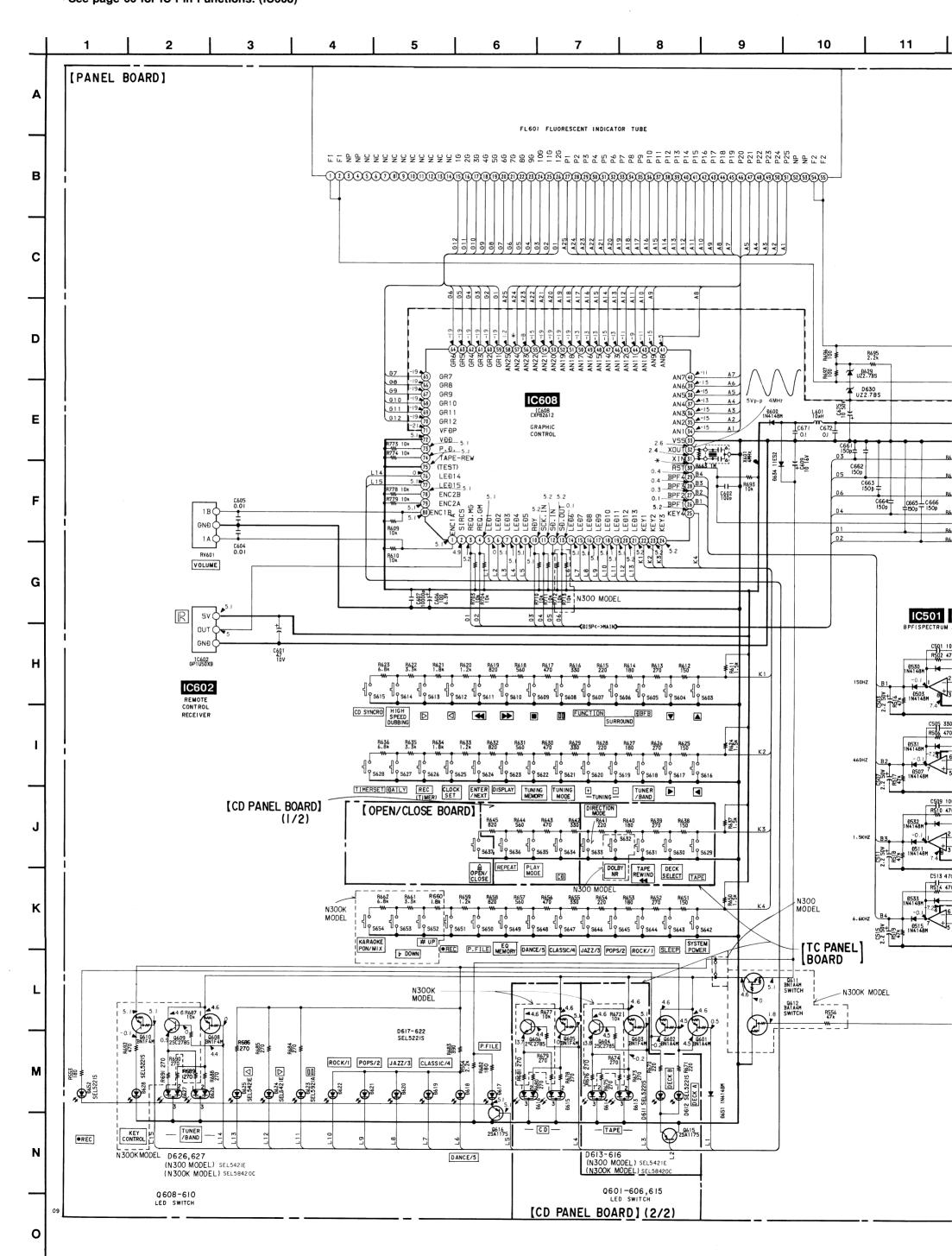
n not be measured.

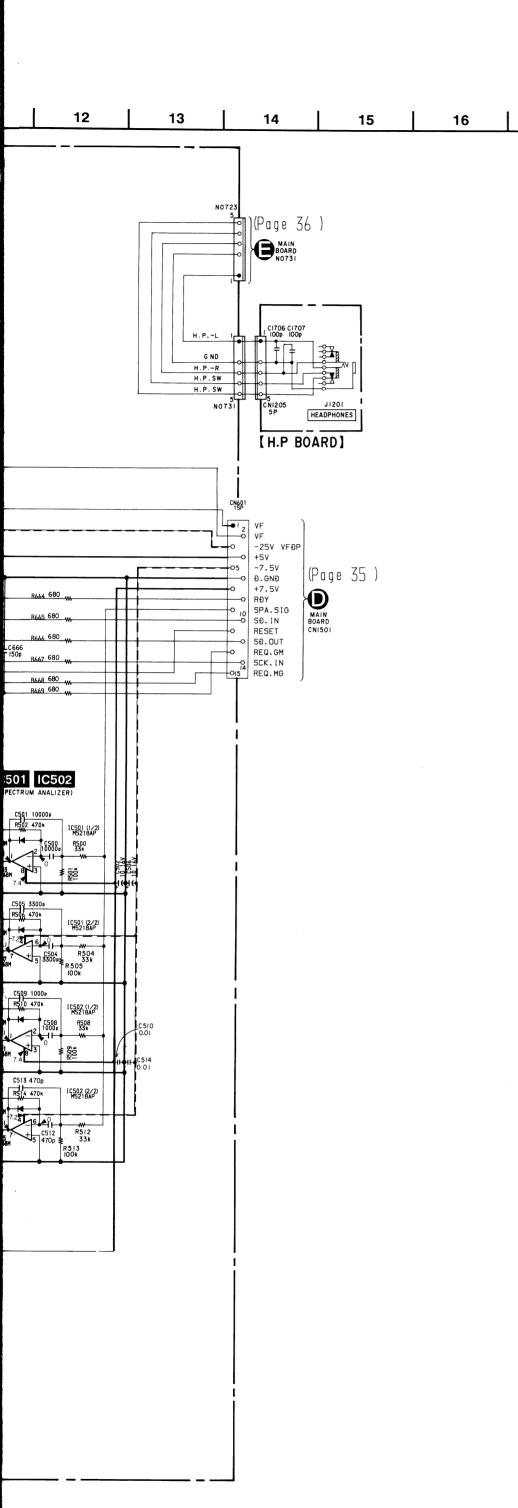
• Voltages are taken with a VOM (Input impedance $10M\Omega$). • Signal path. Voltage variations may be noted due to normal produc-

• Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.

:MIC

6-18. SCHEMATIC DIAGRAM — PANEL SECTION — • See page 66 for IC Pin Functions. (IC608)





20

17

18

19

- All capacitors are in μF unless otherwise noted. $p F : \mu \mu F$ 50WV or less are not indicated except for electrolytics and
- All resistors are in $\boldsymbol{\Omega}$ and 1/4W or less unless otherwise specified.
- panel designation.
- : B+ Line
- ---: B- Line
- Voltage and waveforms are dc with respect to ground under no-signal (deturned) conditions. no mark : FM
 - can not be measured.
- Voltages are taken with a VOM (Input impedance 10M $\!\Omega$). Voltage variations may be noted due to normal production
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production

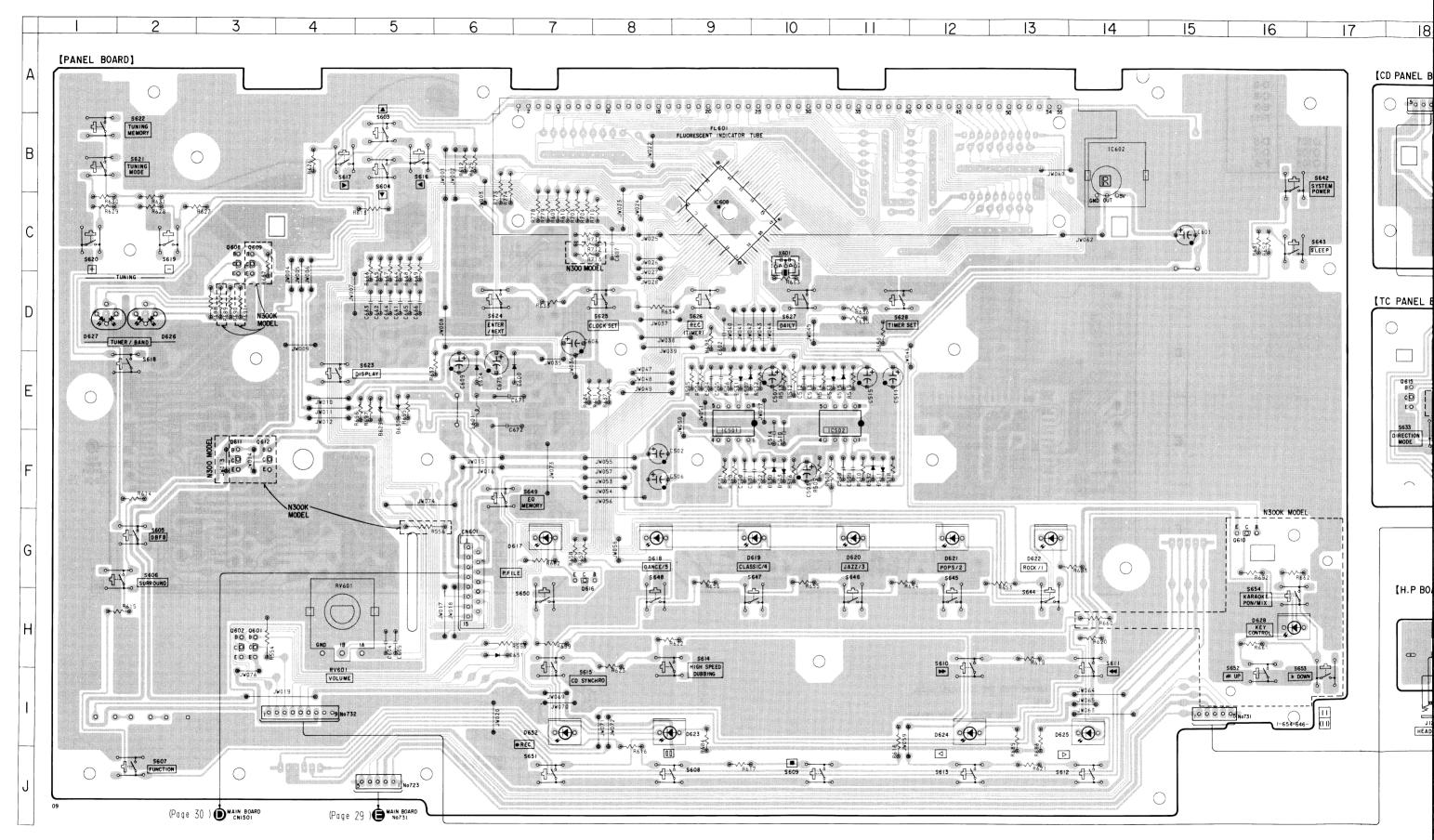
6-19. PRINTED WIRING BOARD — PANEL SECTION — • See page 27 for Circuit Boards Location.

• See page 28 for Semiconductor Lead Layouts.

: parts mounted on the conductor side.

· Pattern from the side which enable seeing.

: internal component.



10 13 14 15 16 18 19 20 21 22 23 [CD PANEL BOARD] 0 0 No714 \bigcirc 5000001 No gaddadaa. 10602 S642 SYSTEM POWER R GND OUT £46,000 N300K MODEL 8655 8653 8653 6 S643 SLEEP [TC PANEL BOARD] No 732 N300K MODEL 50 0 0 0 0 N \bigcirc 80 80 9 0604 BO 603 0604 1-654-650-E C B O 0 O 0610 *့* <u>(</u> ြ **့⊕**∘ 000 ္ရွ္ **∘**∰∘ [OPEN/CLOSE BOARD] D620 JAZZ/3 D622 ROCK / I D618
BANCE/5
5648 D619 CLASSIC/4 POPS/2 \$646 S**647** S654

KARAOKE
PON/MIX [H.P BOARD] ● /// ● R660 D628
KEY
CONTROL No7/4 CNI205 ⊕ √√A.90 0 0 \bigcirc @ 。 小。 Ma) ⊕J₩064 ⊕J₩065 ⊕J₩063 S637

OPEN/
CLOSE **>** 0 0 0 0 05 No73 JW071 J1201
HEAD PHONES \bigcirc (11) 0623 P D625 000 1-654-648-• • • R616 00 ◁ \triangleright 3613 {|...\ 5612 {] \\ \bigcirc

 Semiconductor Location

L	.ocatio	n
Re	ef. No.	Location
	503 507 511 515 530 531 532 533 660 611 612 613 614 615 616 617 618 619 620 621 622 623 624 622 623 624 625 626 627 628 630 634 652 630 631 631 632 633 634 635 636 637 638 638 639 630 630 631 631 632 633 634 635 636 637 638 638 639 630 630 630 630 630 630 630 630	F-10 E-9 F-12 E-11 E-10 E-7 F-19 E-21 E-21 C-20 B-20 G-7 G-9 G-12 I-12 I-14 D-1 E-5 E-6 H-6 I-7
10 10	501 502 602 608	F-9 F-11 C-14 C-9
	601 602 603 604 605 606 608 609 610 611 612 615 616	H-3 F-19 H-18 C-19 C-19 C-3 C-3 G-16 F-3 F-3 E-18 G-7

n the conductor side.

Pattern from the side which enable seeing.

6-20. IC PIN FUNCTIONS — PANEL SECTION —

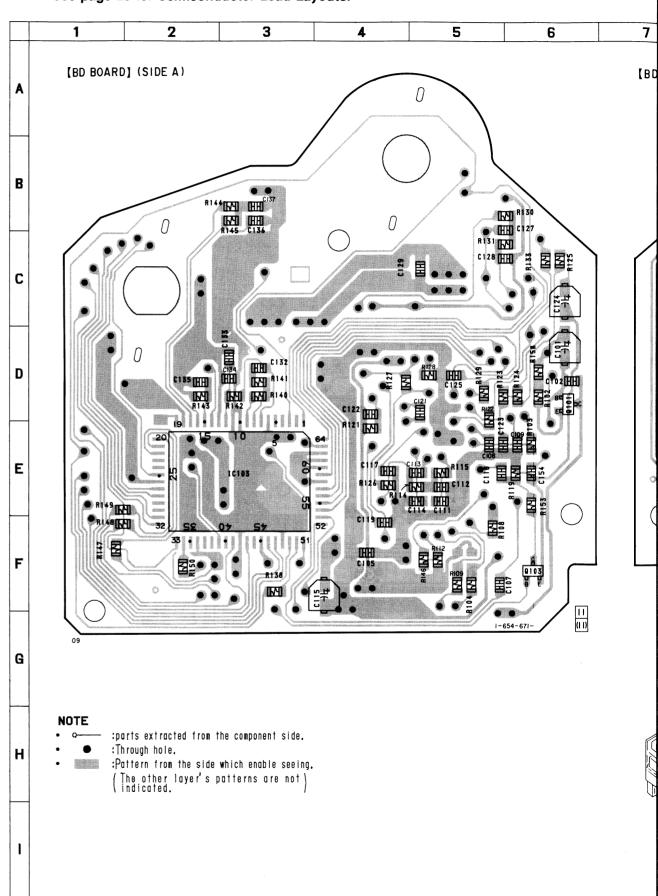
• IC608 GRAPHIC CONTROL (CXP82612-006Q/009Q) IC PIN FUNCTIONS

Pin No.	Pin Name	I/O	Function	
1	ENC1A	I	Volume encoder signal input.	
2	SIRCS	I	SIRCS signal input.	
3	REQ. MG	I	Request signal from master control.	
4	REQ. GM	0	Request signal to master control.	
5 –9	LED1-5	0	LED drive signal output.	
10	RDY	I/O	RDY signal from/to master control.	
11	SCK IN	I	Serial clock input.	
12	SD IN	I	Serial data input.	
13	SD OUT	0	Serial data output.	
14-21	LED6-13	0	LED drive signal output.	
22–25	KEY1-4	I	Key matrix input.	
26-29	BPF1-4	1	Spectram analizer signal input.	
30	RST	I	Reset signal input.	
31	X IN	I	VS-1/ARI-)	
32	X OUT	0	X'tal (4MHz).	
33	Vss	-	GND	
34–58	AN1-25	0	FL segment signal output.	
59–70	GR1-12	0	FL grid signal output.	
71	VFDP	_	-25V for FL	
72	VDD	_	+5V	
73, 74	PD	I	Not used. (Pull up)	
75	V _{DD}	_	+5V	
76, 77	LED14, 15	0	LED drive signal output.	
78, 79	ENC2B, A	1	Not used. (Pull up)	
80	ENC1B	I	Volume encoder signal input.	

- 6-21. PRINTED WIRING BOARD CD SECTION
 - See page 27 for Circuit Boards Location.
 See page 28 for Semiconductor Lead Layouts.

Semiconductor Location

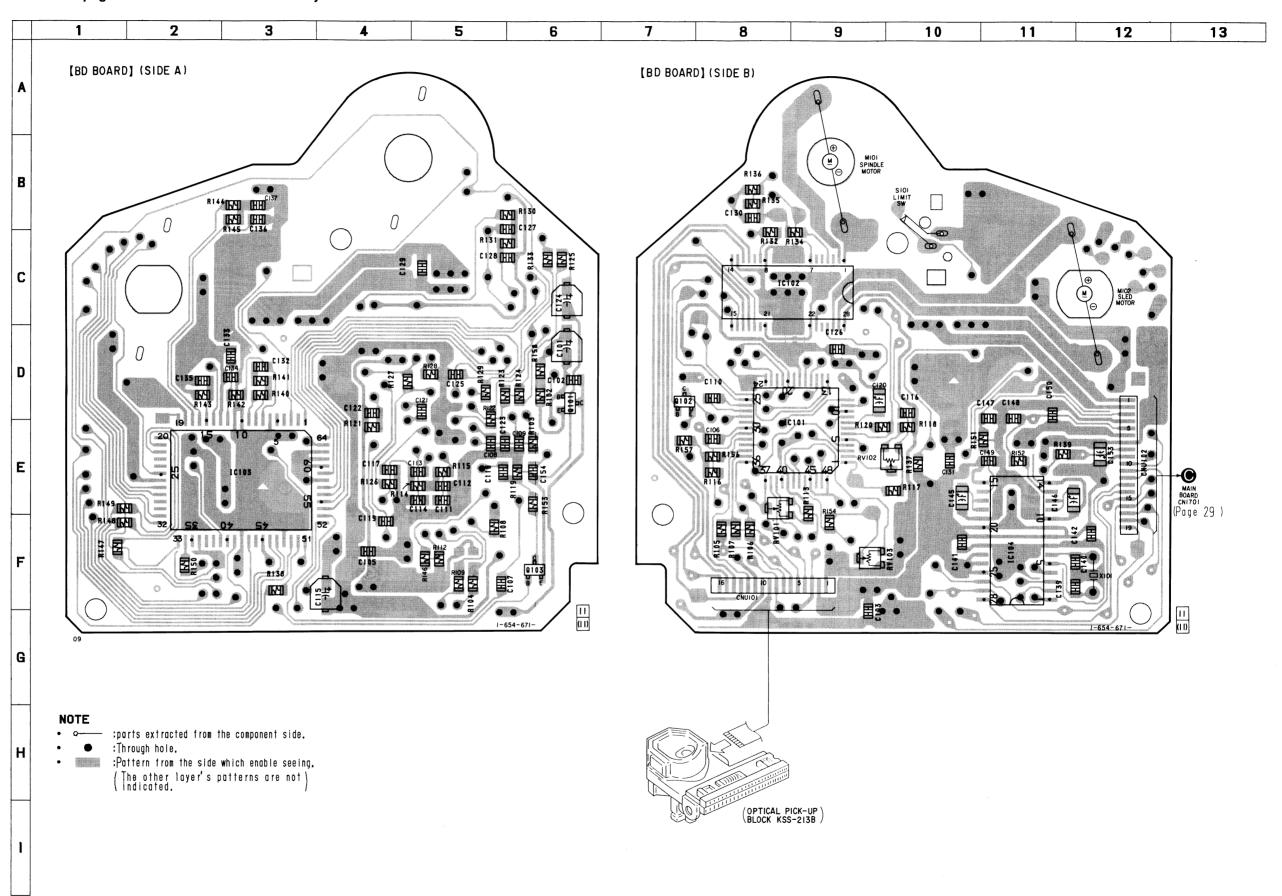
Ref. No.	Location
IC101	D-9
IC102	C-8
IC103	E-3
IC104	F-11
Q101	D-6
Q102	D-7
Q103	F-6

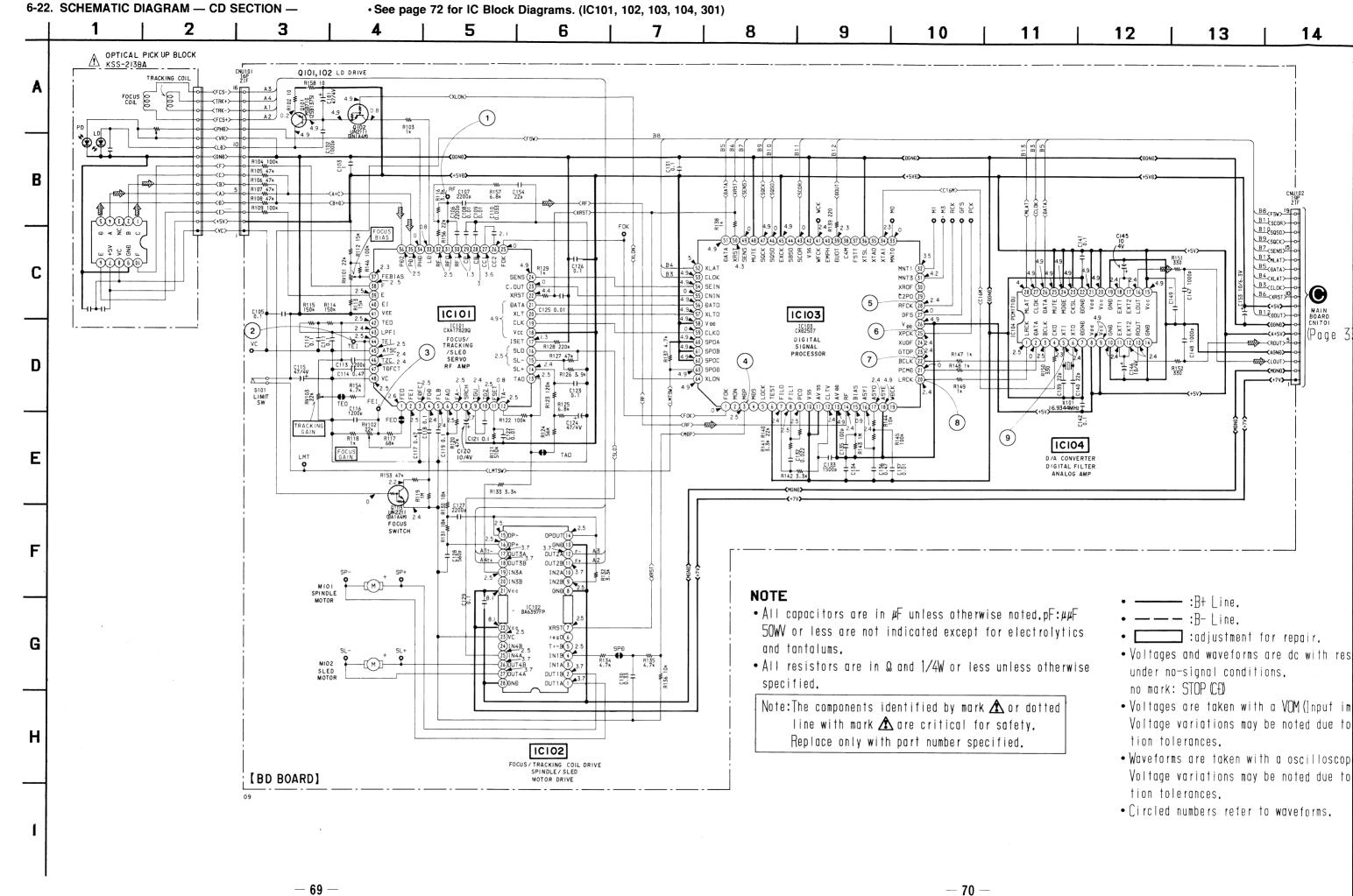


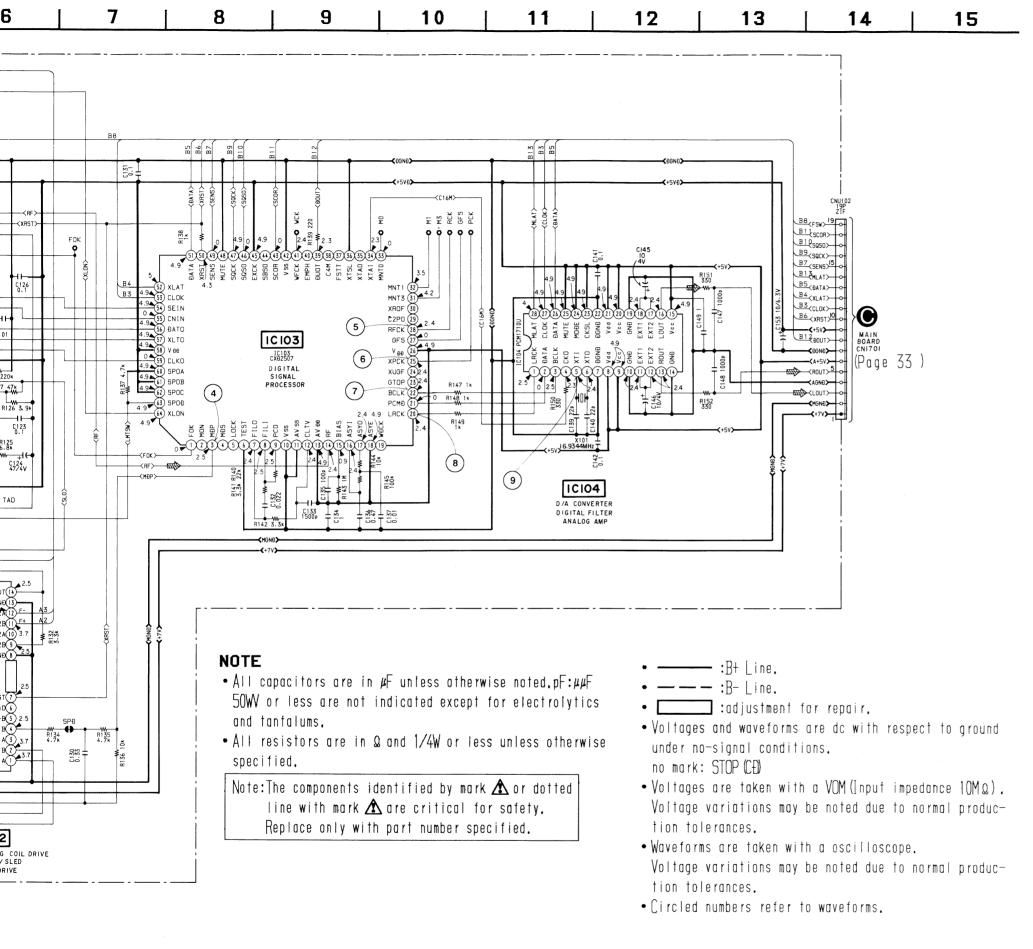
- 6-21. PRINTED WIRING BOARD CD SECTION —
 See page 27 for Circuit Boards Location.
 See page 28 for Semiconductor Lead Layouts.

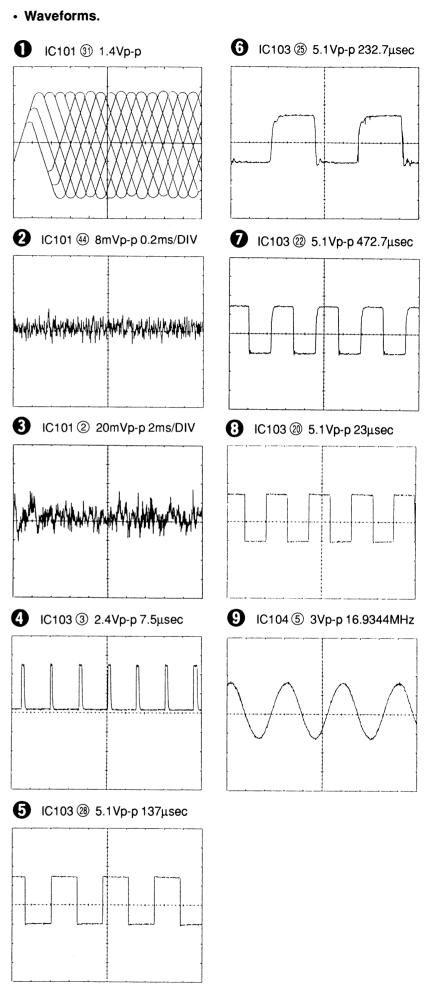
Semiconductor Location

Ref. No.	Location
IC101	D-9
IC102	C-8
IC103	E-3
IC104	F-11
Q101	D-6
Q102	D-7
Q103	F-6

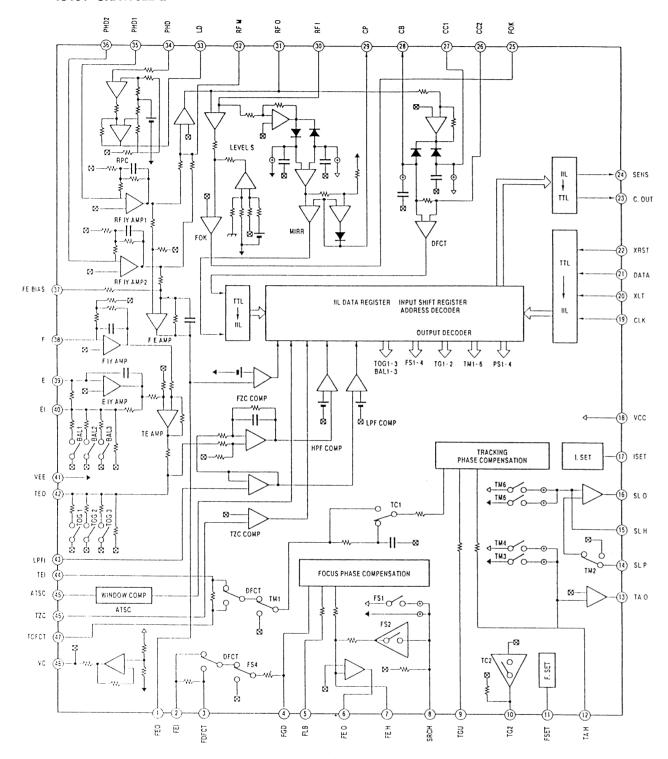




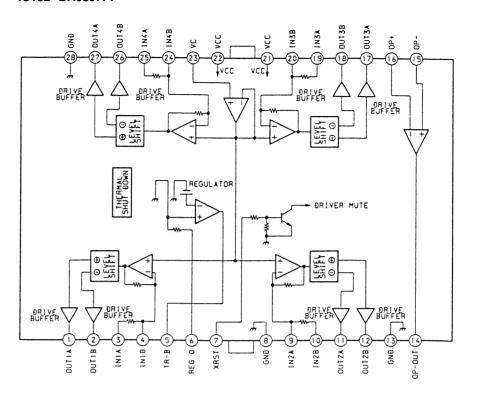




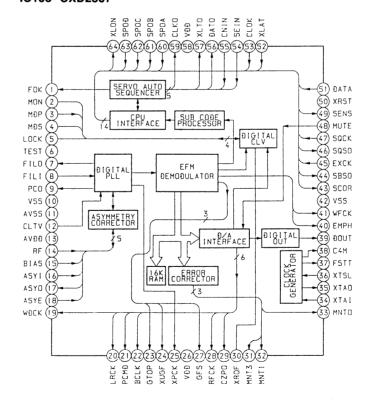
IC101 CXA1782BQ



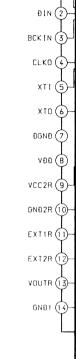
IC102 BA6397FP

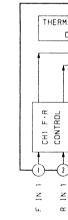


IC103 CXD2507

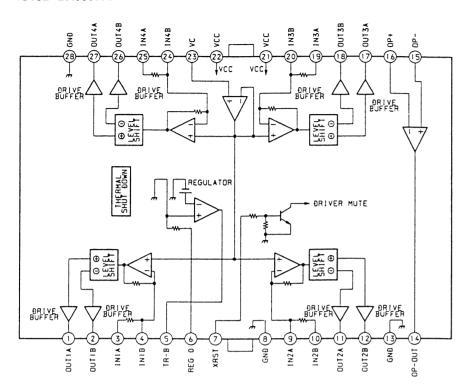


LRCIN (1)

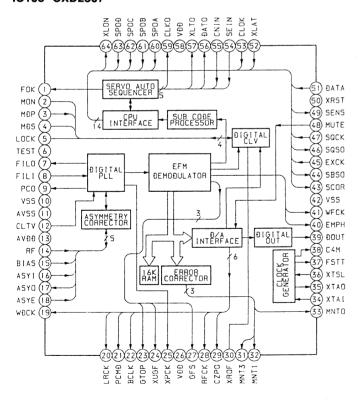




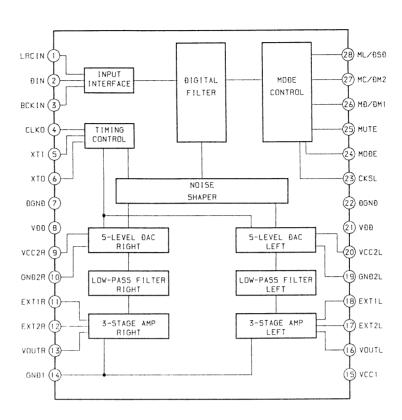
IC102 BA6397FP



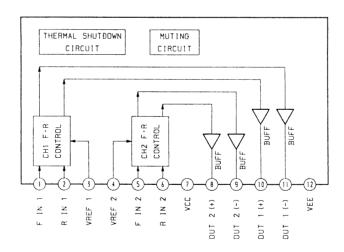
IC103 CXD2507



IC104 PCM1710U

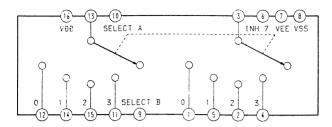


IC301 BA6191

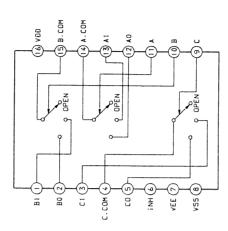


6-24. IC BLOCK DIAGRAMS — MAIN SECTION —

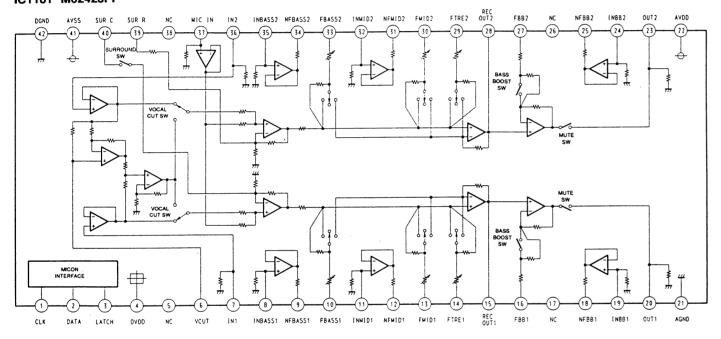
IC1002 MC14052BCP



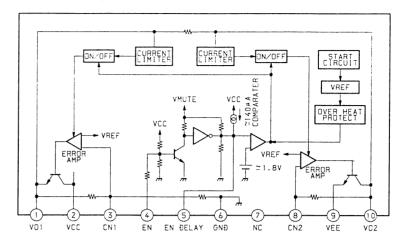
IC1003 MC14053BCP



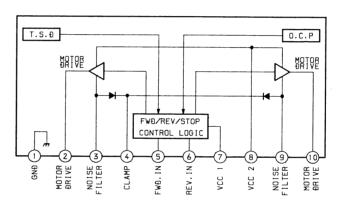
IC1101 M62423FP



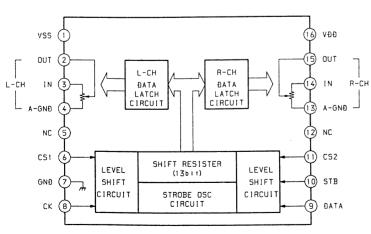
IC1351 LA5618



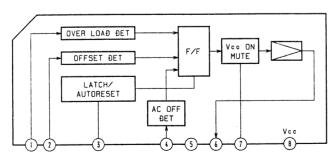
IC1901 LB1641



IC1131 TC9210P



IC1202 μPC1237HA



6-25. IC PIN FUNCTIONS — MAIN SECTION —

• IC1051 MASTER CONTROL (TMP87CP64F-6254)

Pin No.	Pin Name	I/O	Function
1	Vss	I/O	GND
2	XOUT	-	No. 1 (2) (II)
3	XIN	I	X'tal (8MHz).
4	RESET	I	Reset signal input.
5	XOUT	0	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
6	XIN	I	X'tal for clock (32.768kHz)
7	GND (test)	-	GND
8	BACK UP	I	Back up signal input.
9	COUNT SW	I	
10	ĪNIT SW	I	
11	DISC SENS	I	Not used.
12	MID SENS	I])
13	CD XRST	0	Reset signal output for CD.
14	POWER ON	0	Power on signal output.
15	MUTE (TA)	0	Mute signal for AMP.
16	MPX ON	0	Control signal output for MPX. (N300K)
17	KEY CON LATCH	0	Latch signal for KEY CON. (N300K)
18	VOL LATCH	0	Latch signal for electrical volume.
19	K-CON	0	Control siganl output for KEY CON. (N300K)
20	K-PON B	0	Control signal output for KARAOKE PON. (N300K)
21	FUNC A	0	
22	FUNC B	0	Input selector control signal output.
23	FUNC C	0	
24	GEQ. LATCH	0	Latch signal for graphic equalizer
25	RDS INT	1	Not used. (Pull up)
26	SCOR	I	Sub-code sync signal input.
27	SENS	I	Table sence signal input.
28	CD POWER	0	CD power control signal output.
29	CD. G-LATCH	0	Not used.
30	DBFB1-2	0	DBFB switching signal output.
31	ST-MUT	0	Mute signal output for tuner.
32	ST-CE	0	Latch signal output for tuner.
33	STEREO	I	Stereo detection signal from tuner.
34	TUNED	I	Tuned detection signal from tuner.
35	SQ (RDS) CLK	0	Clock output for sub-Q.
36	SQ (RDS) DI	I	Sub-Q input.
37	RDS RESET	0	Not used.
38	CLK	0	Clock output. Serial bus line.
39	DIN	I	Data input. Serial bus line.
40	D OUT	0	Data output. Serial bus line.

Pin No.	Pin Name	I/O	Function	
41	TABLE SENS	I	Sense signal input.	
42	REQ GM	I	Request signal from graphic control.	
43	REQ MG	0	Request signal to graphic control.	
44	CLK MG	0	Clock signal to graphic control.	
45	DI GM	I	Data input from graphic control.	
46	DO MG	0	Data output to graphic control.	
47	MC RDY	I/O	RDY signal from/to graphic control.	
48	VAREF	I	Analog reference voltage input.	
49	VAss	_	GND	
50	Vss	_	SOND	
51	VDD	-	+5V	
52	UNGENT. SIG	I	Not used. (Pull up)	
53	URGENT. STBY	0	Not used.	
54–57	SUBKEY4-1	I	Test land.	
58, 59	DEST2, 1	I	Not used.	
60, 61	PWM1, 2	I	Not used.	
62	B-PLAY	I		
63	B-SHUT	I		
64	B-HALF	I	Control signal input from deals	
65	A-SHUT	I	Control signal input from deck.	
66	A-PLAY	I		
67	A-HALF	I)	
68	CAP M H/L	0	Control signal output for capstan motor.	
69	CAP M ON/OFF	0	Control signal output for capstall filotor.	
70	TRIG H/L	0		
71	B TRIG	0	Control signal output for trigger motor.	
72	A TRIG	0		
73	RELAY REC/PB	0		
74	PB A/B	0		
75	EQ NORM/HIGH	0		
76	BIAS ON OFF	0	Control signal output for deck.	
77	RM ON/OFF	0		
78	REC/PB	0		
79	NR ON/OFF	0		
80	LM ON/OFF	0	Mute signal output for deck.	
81	PASS	0	Dolby switching signal output.	
82	CDG MUTE	0		
83	UP MOTOR	0	Not used	
84	DOWN MOTOR	0	Not used.	
85	TABLE R (5CD)	0	J	

Pin No.	Pin Name	I/O	Function
86	TABLE L (5CD)	0	Not used.
87	LOAD OUT	0	Ladian motor control signal autout
88	LOAD IN	0	Loading motor control signal output.
89	DF LATCH	0	Latch signal for digital filter.
90	XLT	0	Latch signal digital signal processor.
91	FOCUS SW	0	Focus switching signal output,.
92	DUB HI	ı	Hi speed dubbing signal input.
93	TEST-1	I	Test land.
94	OUT SW	ı	Out switch signal input.
95	ĪNSW	I	Down switch signal input.
96	UP SW (5CD)	I	Up switch signal input.
97	PANEL SW (MAGK)	I	
98	CLOSE SW	1	Not used.
99	OPEN SW	I	
100	V _{DD}	_	+5V

SECTION 7 EXPLODED VIEWS

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

• Abbreviation

G : German model IT : Italian model : East European model EE EΑ : Saudi Arabia model SP : Singapore model MY : Malaysia model

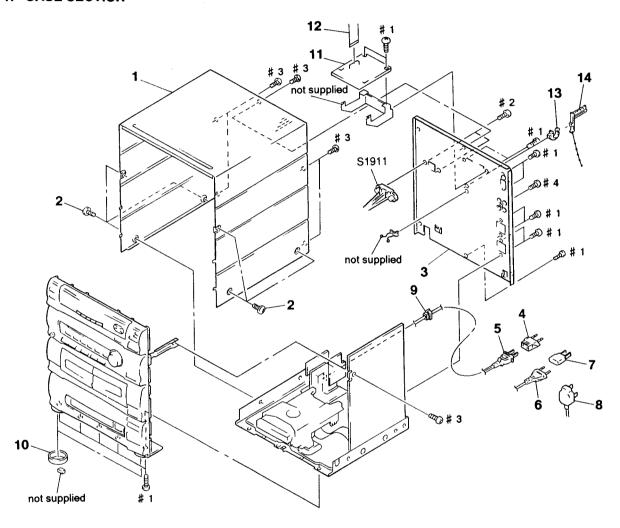
AEP1 : AEP model without power source for PS-LX56P AEP2 : AEP model with power source for PS-LX56P

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.

Replace only with part number

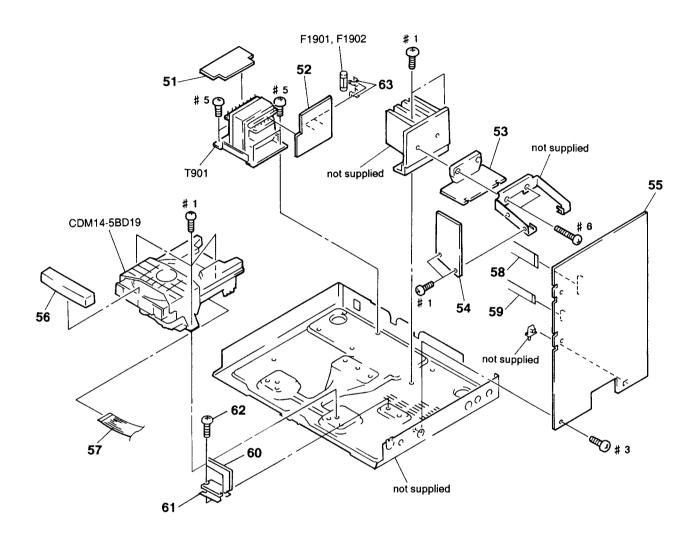
specified.

7-1. CASE SECTION



Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description	Remark
1 2 * 3 * 3 * 3	4-969-783-11 4-969-783-21	SCREW (CASE PANEL, BACK PANEL, BACK			↑ 5 ↑ 6 ↑ 7 ↑ 8	1-575-651-21 1-569-008-11 1-751-529-11	(N300:AEP, G, IT, EE, CIS/N300K:EA, M ADAPTER, CONVERSION 2P (N300K:EA, MY CORD, POWER (N300:UK)	
* 3 * 3 * 3 * 3	4-969-783-51 4-969-783-61 4-969-783-71	PANEL, BACK PANEL, BACK PANEL, BACK PANEL, BACK	(N300:IT) (N300:EE) (N300:CIS)		9 9 10 * 11	4-966-266-01 4-921-918-11 A-4377-151-A	BUSHING (FBS001), CORD (N300/N300K:EA, M BUSHING (S) (FBS002), CORD (N300K:E) PLATE, ORNAMENTAL KEY-CON BOARD, COMPLETE (N300K)	
* 3 * 3 * 3 * 4	4-970-162-11 4-970-162-21 4-970-162-31		(N300K:E) (N300K:MY)		* 11 12 12 * 13 14 AS1911	1-690-113-11 1-690-590-31 4-949-235-11 4-956-370-12	POLAR BOARD, COMPLETE (N300:CIS) WIRE, FLAT TYPE (15 CORE) (N300K) WIRE (FLAT TYPE) (13 CORE) (N300:CIS) HOOK (N300:AEP, G, IT, EE, CIS/N300K) BAND, PLUG FIXED (N300:UK) SWITCH, VOLTAGE CHANGE (N300K:E, EA,	

7-2. CHASSIS SECTION

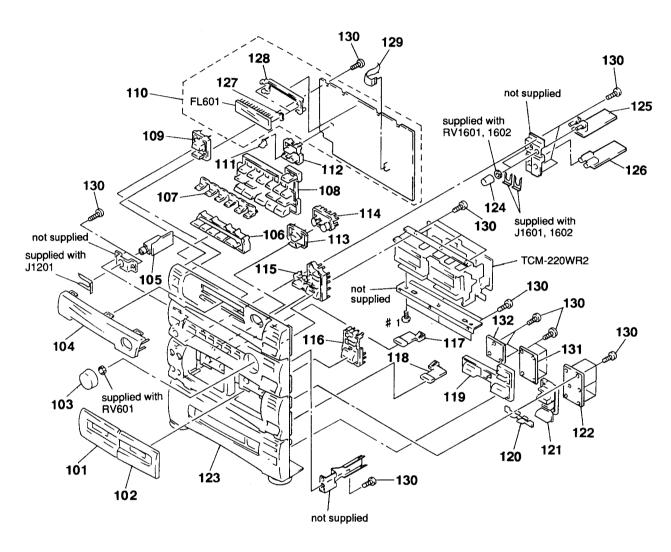


The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.

Replace only with part number specified.

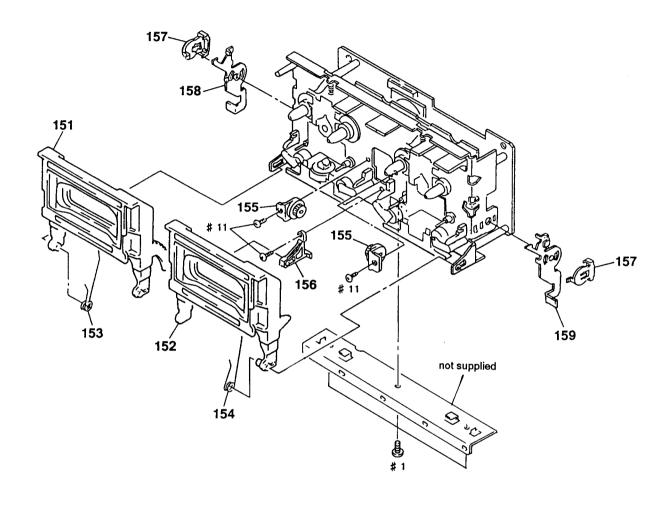
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 51 * 52 * 53	1-654-654-11	POWER PRIMARY BOARD POWER BOARD POWER AMP BOARD. COMPLETE		* 55 56	A-4377-635-A 4-969-689-01	MAIN BOARD, COMPLETE (N300K:EA) PANEL, LOADING	
* 53 * 53	A-4377-147-A	(N300:AEP, UK, 0 POWER AMP BOARD, COMPLETE (N300K) POWER AMP BOARD, COMPLETE (N300:EE, 0		57 58 59	1-751-590-11 1-590-459-11	WIRE (FLAT TYPE) (19 CORE) WIRE (FLAT TYPE) (21 CORE) WIRE, FLAT TYPE (11 CORE)	
* 54 * 55 * 55	A-4377-116-A	DBFB BOARD (N300K) MAIN BOARD, COMPLETE (N300:UK, AEP2) MAIN BOARD, COMPLETE (N300K:E.SP.MY)		* 60 * 61	3-895-841-21		
* 55 * 55	A-4377-461-A	MAIN BOARD, COMPLETE (N300:AEP1) MAIN BOARD, COMPLETE (N300:CIS)	,	62 63 <u>1</u> F1901	1-532-350-00	HOLDER, FUSE FUSE, TIME LAG (T4AL)	
* 55 * 55 * 55	A-4377-630-A	MAIN BOARD, COMPLETE (N300:EE) MAIN BOARD, COMPLETE (N300:G) MAIN BOARD, COMPLETE (N300:IT)		⚠T901 ⚠T901	1-427-706-11	TRANSFORMER, POWER (N300K) TRANSFORMER, POWER (N300)	
* 55	A-4377-630-A	MAIN BOARD, COMPLETE (N300:G)			1-532-350-00 1-427-706-11	FUSE, TIME LAG (T4AL) TRANSFORMER, POWER (N300K)	

7-3. FRONT PANEL SECTION



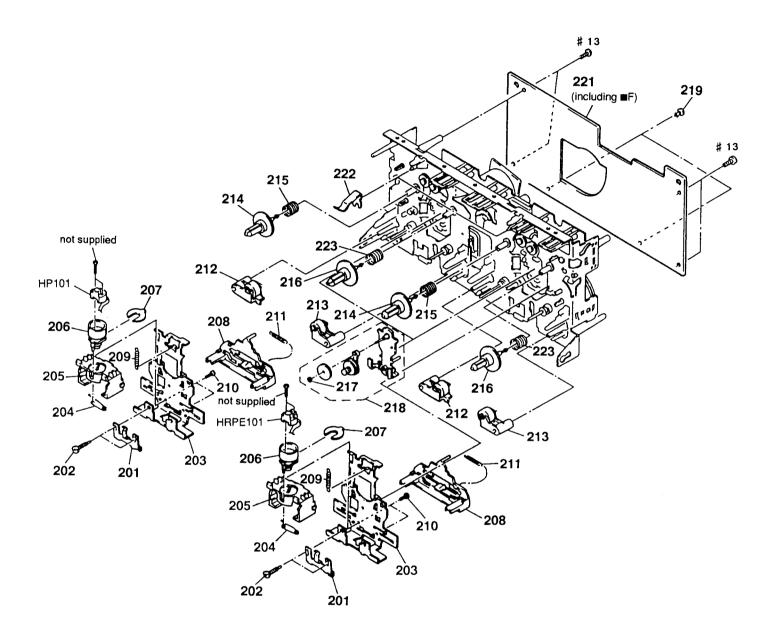
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101 102		LID (A) ASSY, CASSETTE LID (B) ASSY, CASSETTE		118	4-969-707-01	BUTTON (EJECT-R)	
103 104 * 105	4-969-683-01	KNOB (V) DISPLAY (ST)		119 120 121	4-969-705-01	BUTTON (CD) ASSY INDICATOR (TC) BUTTON (TC) ASSY	
106 107		BUTTON (TIMER) INDICATOR (TA)		* 122 123	1-654-650-11	TC PANEL BOARD PANEL, FRONT (N300)	
108 109 * 110	4-969-693-01	BUTTON (PLAY) ASSY BUTTON (POWER) PANEL BOARD, COMPLETE (N	300: AEP, UK, G, IT)	123 124 * 125	4-955-744-01	PANEL, FRONT (N300K) KNOB (BA) (N300K) ECHO BOARD, COMPLETE (N300K)	
* 110 * 110		PANEL BOARD, COMPLETE (N PANEL BOARD, COMPLETE (N		* 126 * 127	1-654-620-11 4-949-935-21	MIC BOARD (N350K)	
111 112 113	4-969-676-01	INDICATOR (KARAOKE) (N300 BUTTON (KARAOKE) (N300K) BUTTON (CURSOR 1)	K)	* 128 129 130	1-575-906-31	HOLDER, FL TUBE WIRE, FLAT TYPE (15 CORE) SCREW (2.6X8), +BVTP	
114 115		BUTTON (CURSOR 2) BUTTON (ST) ASSY		* 131 * 132	1-654-649-11	CD PANEL BOARD OPEN/CLOSE BOARD	
116 117	4-969-669-31			FL601	1-517-341-11	INDICATOR TUBE, FLUORESCENT	

7-4. TC MECHANISM SECTION 1 (TCM-220 WR2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151 152 153 154 155	X-4943-775-1 4-959-231-11	HOLDER (L) ASSY, CASSETTE HOLDER (R) ASSY, CASSETTE SPRING (L), TORSION SPRING (R), TORSION DAMPER		* 156 157 * 158 * 159	3-354-957-01 3-354-953-01	FULCRUM, HOLDER JOINT (LOCK LEVER) LEVER (LOCK LEVER L) LEVER (LOCK LEVER R)	

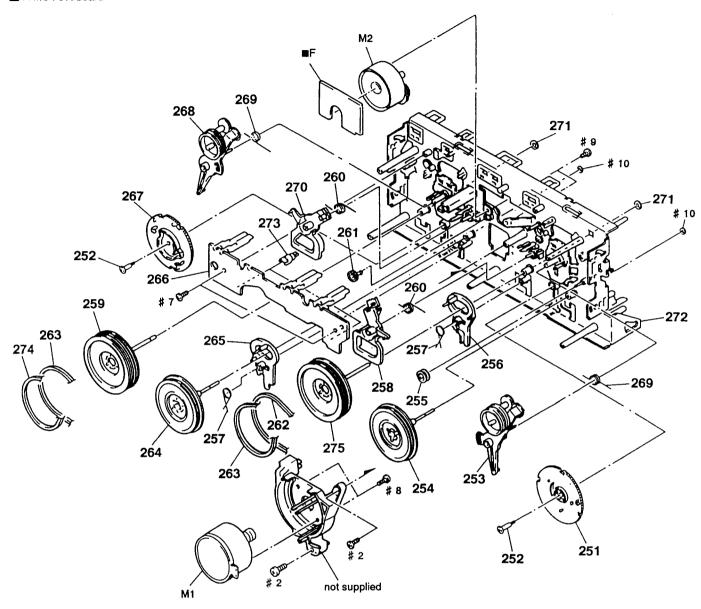
7-5. TC MECHANISM SECTION 2 (TCM-220 WR2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201 202 * 203 204	3-919-684-01 X-3367-584-2	SPRING, AZIMUTH ADJUSTMENT SCREW, AZIMUTH ADJUSTMENT SLIDER (HEAD) ASSY SPRING, HEAD TOGGLE		213 214 215	3-908-613-01	PINCH LEVER (FWD) ASSY GEAR (S), REEL SPRING, COMPRESSION	
205		FITTING BLOCK, HEAD		216 217		REEL (T) ASSY WASHER (1.5), STOPPER	
206 * 207 208	3-908-559-01	ROTARY BLOCK, HEAD STOPPER, AZIMUTH SLIDER (REV SLIDER)		218 219 * 221	X-3370-173-1 3-911-116-21		
209 210	3-917-143-01	SPRING, TENSION SCREW (P2X6) (B TIGHT)		222	3-915-490-01	DETENT, HALF	
211 212		SPRING, TENSION PINCH LEVER (REV) ASSY			1-500-093-11	SPRING, COMPRESSION HEAD, MAGNETIC (PLAYBACK) HEAD, MAGNETIC (REC/PB/ERASE)	

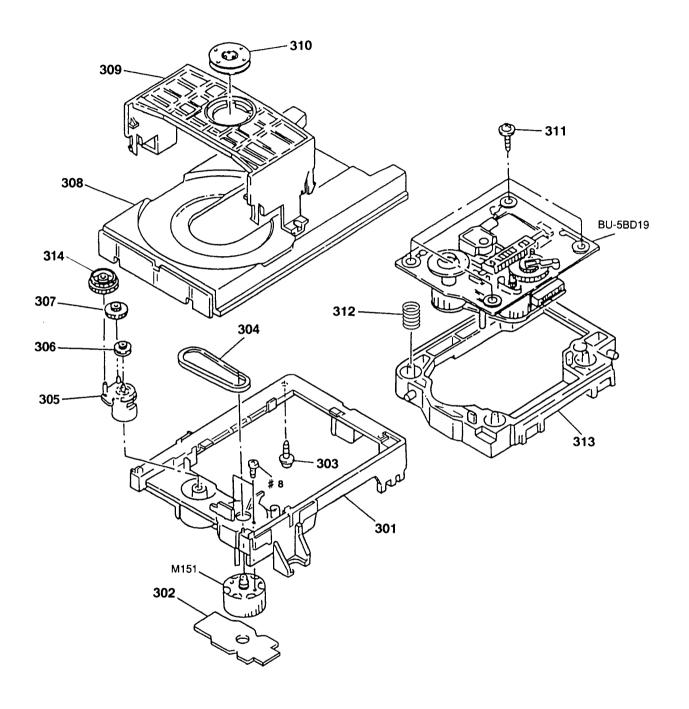
7-6. TC MECHANISM SECTION 3 (TCM-220 WR2)

F: MOTOR board



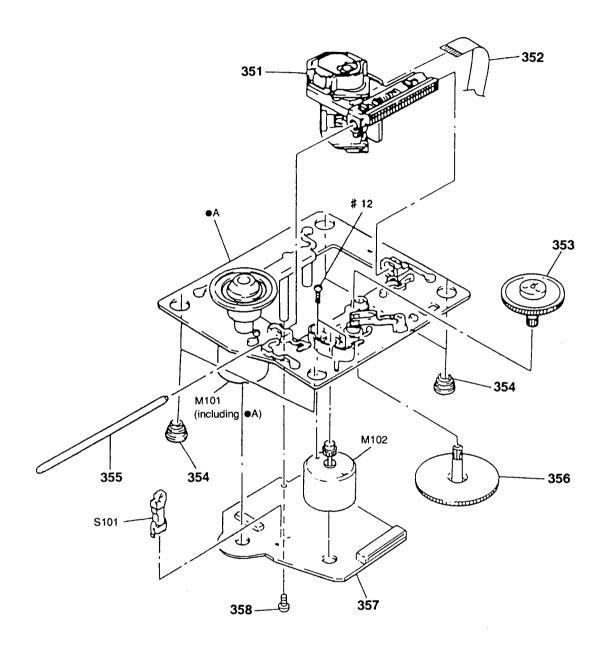
251	emark
253 X-3367-590-2 ARM (A) ASSY, FR 254 X-3370-169-1 FLYWHEEL (AR) ASSY 255 3-908-610-01 PULLEY, TENSION 256 3-908-599-01 LEVER (REV-A) 257 3-908-601-01 SPRING (REV LEVER), TORSION 258 3-908-603-01 LEVER (TRIGGER A) 266 1-650-669-11 LEAF SWITCH BOARD 267 3-908-598-01 CAM (B) 268 X-3367-591-2 ARM (B) ASSY, FR 269 3-911-114-01 SPRING (FR), TORSION 270 3-908-604-01 LEVER (TRIGGER B) 271 3-911-115-01 WASHER, STOPPER	
255 3-908-610-01 PULLEY, TENSION 268 X-3367-591-2 ARM (B) ASSY, FR 269 3-911-114-01 SPRING (FR), TORSION 256 3-908-599-01 LEVER (REV-A) 270 3-908-604-01 LEVER (TRIGGER B) 257 3-908-601-01 SPRING (REV LEVER), TORSION 258 3-908-603-01 LEVER (TRIGGER A) 271 3-911-115-01 WASHER, STOPPER	
256 3-908-599-01 LEVER (REV-A) 270 3-908-604-01 LEVER (TRIGGER B) 271 3-908-603-01 LEVER (TRIGGER A) 271 3-911-115-01 WASHER, STOPPER	
256	
257 3-908-601-01 SPRING (REV LEVER), TORSION 258 3-908-603-01 LEVER (TRIGGER A) 271 3-911-115-01 WASHER, STOPPER	
258 3-908-603-01 LEVER (TRIGGER A) 271 3-911-115-01 WASHER, STOPPER	
260 3-908-605-01 SPRING (TRIGGER), TORSION * 273 3-381-776-01 HOLDER (LED)	
274 3-917-176-01 BELT (B)	
261 3-908-609-01 GEAR, TRIGGER 275 X-3370-172-1 FLYWHEEL (AF) ASSY 262 3-913-845-01 BELT (A)	
263 3-913-846-01 BELT (FR) M1 X-3369-110-1 MOTOR ASSY (CAPSTAN)	
264 X-3370-171-1 FLYWHEEL (BR) ASSY M2 X-3369-111-1 MOTOR ASSY (TRIGGER)	

7-7. CD MECHANISM SECTION (CDM14-5BD19)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301 302 303		CHASSIS (MD) LOADING BOARD BRACKET, YOKE		309 310	4-933-110-01 1-452-538-11		
304 305	4-927-649-01 4-933-109-01	BELT		311 312 313		SCREW (+PTPWH M2.6X6) SPRING (932), COMPRESSION	
306 307 308	4-927-651-01 4-967-268-01 4-933-112-01	GEAR (C)		314 M151	4-933-107-12		

7-8. BASE UNIT SECTION (BU-5BD19)



The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1 351 352 353 354 355 356	1-769-069-11 4-917-567-21 4-951-940-01 4-917-565-01	INSULATOR (BU)	N)	M102	4-951-620-01 X-4917-523-4 X-4917-504-1	BD BOARD, COMPLETE SCREW (2.6X8), +BVTP MOTOR ASSY (SPINDLE) MOTOR ASSY (SLED) SWITCH, LEAF (LIMIT)	



SECTION 8 ELECTRICAL PARTS LIST

NOTE:

The components identified by mark $\hat{\Delta}$ or dotted line with mark $\hat{\Delta}$ are critical for safety.

Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

All resistors are in ohms METAL: Metal-film resistor

METAL OXIDE: Metal Oxide-film resistor

F: nonflammable

SEMICONDUCTORS

In each case, u: μ , for example:

uA...: μ A..., uPA...: μ PA..., uPB...: μ PB..., uPC...: μ PC..., uPD...: μ PD...

CAPACITORS

uF : μ F

• COILS $uH: \mu H$

Abbreviation

G : German model IT : Italian model

EE : East European model EA : Saudi Arabia model SP : Singapore model

MY : Malaysia model

AEP1 : AEP model without power source

for PS-LX56P

AEP2 : AEP model with power source

for PS-LX56P

			41 C	. д. г. С	D						
Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
*	A-4673-402-A	BD BOARD, COMPI	LETE			C139	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
		********				C140		CERAMIC CHIP	22PF	5%	50V
						C141		CERAMIC CHIP	0. 1uF	0.0	25V
		< CAPACITOR >				C142		CERAMIC CHIP	0. 1uF		25V
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V	C145	1-135-201-11	TANTALUM CHIP	10uF	20%	4 V
C102	1-163-275-11	CERAMIC CHIP	0. 001uF	5%	50 V	C146		TANTALUM CHIP	10uF	20%	4 V
C103	1-164-346-11	CERAMIC CHIP	luF		16V	C147	1-163-275-11	CERAMIC CHIP	0. 001uF	5%	50V
C105	1-163-038-91	CERAMIC CHIP	0. 1uF		25V	C148		CERAMIC CHIP	0.001uF	5%	50V
C106	1-164-695-11	CERAMIC CHIP	0. 0022uF	5%	50 V	C149		CERAMIC CHIP	luF		16V
C107	1-164-695-11	CERAMIC CHIP	0. 0022uF	5%	50V	C153	1-135-259-11	TANTAL, CHIP	10uF	20%	6. 3V
C108	1-164-232-11	CERAMIC CHIP	0. 01uF		50V	C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V						
C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V			< CONNECTOR >			
C111	1-163-038-91	CERAMIC CHIP	0. 1uF		25V						
						CNU101	1-770-014-11	CONNECTOR, FFC/	FPC 16P		
C112		CERAMIC CHIP	0. luF		25V	CNU102	1-770-013-11	CONNECTOR, FFC/	FPC 19P		
C113	1-164-695-11	CERAMIC CHIP	0. 0022uF	5%	50V						
C114	1-164-005-11	CERAMIC CHIP	0. 47uF		25V			< IC >			
C115	1-126-607-11		47uF	20%	4V						
C116	1-163-143-00	CERAMIC CHIP	0. 0012uF	5%	50V		8-752-069-56 8-759-291-06	•	·1		
C117	1-164-005-11	CERAMIC CHIP	0. 47uF		25V		8-752-372-94		•		
C118		CERAMIC CHIP	0. 1uF		25V		8-759-185-29		T1		
C119		CERAMIC CHIP	0. 1uF		25V		0 100 100 20	TO TOMITIOU E	,1.1		
C120		TANTALUM CHIP	10uF	20%	4V			< MOTOR >			
C121		CERAMIC CHIP	0. 1uF		25V			· motor ·			
						M101	X-4917-523-4	MOTOR ASSY (SPI	NDLE)		
C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V	M102		MOTOR ASSY (SLE			
C123	1-163-038-91	CERAMIC CHIP	0. 1uF		25V			(-,		
C124	1-126-607-11	ELECT CHIP	47uF	20%	4V			< TRANSISTOR >			
C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V						
C126	1-163-038-91	CERAMIC CHIP	0. 1uF		25V	Q101	8-729-010-08	TRANSISTOR MS	B710-RT1		
						Q102	8-729-424-08	TRANSISTOR UN	2111		
C127	1-164-695-11	CERAMIC CHIP	0. 0022uF	5%	50V	Q103	8-729-421-22		2211		
C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V						
C129	1-163-038-91	CERAMIC CHIP	0. 1uF		25V			< RESISTOR >			
C130	1-164-336-11	CERAMIC CHIP	0. 33uF		25V						
C131	1-163-038-91	CERAMIC CHIP	0. 1uF		25V	R102	1-216-001-00	METAL CHIP	10 5%	1/10	W
					Į.	R103	1-216-049-91		1K 5%	1/10	
C132	1-163-037-11	CERAMIC CHIP	0. 022uF	10%	25V	R104	1-216-097-00	METAL CHIP	100K 5%	1/10	
C133	1-163-145-00	CERAMIC CHIP	0. 0015uF	5%	50V	R105	1-216-089-00	METAL CHIP	47K 5%	1/10	
C134	1-164-346-11	CERAMIC CHIP	luF		16V	R106	1-216-089-00		47K 5%	1/10	
C135	1-163-117-00	CERAMIC CHIP	100PF	5%	50V					, -	
C136	1-164-005-11	CERAMIC CHIP	0. 47uF		25V	R107	1-216-089-00	METAL CHIP	47K 5%	1/10	W
						R108	1-216-089-00	METAL CHIP	47K 5%	1/10	
C137	1-164-232-11	CERAMIC CHIP	0. 01uF		50V	R109	1-216-097-00		100K 5%	1/10	

BD CD PANEL DBFB

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description			Remark
R112 R113	1-216-077-00 1-216-077-00		15K 15K	5% 5%	1/10W 1/10W		RV103	1-241-396-11	RES, ADJ, MET	TAL GLAZE 22	K	
R114	1-216-101-00		150K	5%	1/10W				< SWITCH >			
R115 R116	1-216-101-00 1-216-061-00	METAL CHIP	150K 3.3K		1/10W 1/10W		S101	1-572-085-11	SWITCH, LEAF	(LIMIT)		
R117 R118	1-216-093-00 1-216-049-91		68K 1K	5% 5%	1/10W 1/10W				< VIBRATOR >			
R119	1-216-121-00		1M	5%	1/10W		X101		VIBRATOR, CRY	,	,	
R120 R121	1-216-089-00 1-216-114 - 00		47K 510K	5% 5%	1/10W 1/10W		******	******	********	********	*****	******
R122 R123	1-216-097-00 1-216-099-00		100K 120K		1/10W 1/10W		*	1-654-649-11	CD PANEL BOAF			
R124 R125	1-216-091-00 1-216-069-00		56K 6.8K	5% 5%	1/10W 1/10W				< DIODE >			
R126	1-216-063-00	METAL CHIP	3. 9K	5%	1/10W		D615	8-719-046-42		121E-TH8F (N		
R127 R128	1-216-089-00 1-216-105-91		47K 220K	5% 5%	1/10W 1/10W		D615 D616 D616	8-719-052-22 8-719-046-42 8-719-052-22	DIODE SEL54	8420C-TP (N3 821E-TH8F (N 8420C-TP (N3	300)	
R129	1-216-049-91		1K	5%	1/10W					·	,	
R130 R131	1-216-079-00 1-216-079-00		18K 18K	5% 5%	1/10W 1/10W				< TRANSISTOR	>		
R132	1-216-061-00		3. 3K		1/10W		Q605	8-729-900-63	TRANSISTOR	DTA124ES		
R133	1-216-061-00	METAL CHIP	3. 3K	5%	1/10W		Q606	8-729-119-78	TRANSISTOR	2SC2785-HFE	(N300I	()
R134	1-216-065-00		4. 7K		1/10W				< RESISTOR >			
R135 R136	1-216-065-00 1-216-073-00		4. 7K 10K	5% 5%	1/10W 1/10W		R642	1-249-411-11	CARRON	330 5%	1/4W	
R137	1-216-065-00		4. 7K		1/10\		R643	1-249-413-11		470 5%	1/4W	F
R138	1-216-049-91		1K	5%	1/10W		R644	1-249-414-11		560 5%	1/4W	F
D100	1 010 000 00	MDD11 CUID	000	5 0/	1 (105		R645	1-249-416-11		820 5%	1/4W	F
R139 R140	1-216-033-00 1-216-081-00		220 22K	5% 5%	1/10W 1/10W		R677	1-249-429-11	CARBON	10K 5%	1/4W	(N300K)
R140	1-216-061-00			5%	1/10W		R678	1-249-410-11	CARRON	270 5%	1/4W	F
R142	1-216-061-00		3. 3K		1/10W		R679	1-249-410-11		270 5%		F (N300K)
R143	1-216-121-00	METAL CHIP	1M	5%	1/10W		R680	1-249-410-11		270 5%		F
D144	1-216-073-00	METAL CULD	101/	ΓW	1 /108		R681	1-249-410-11	CARBON	270 5%	1/ 4 W	F (N300K)
R144 R145	1-216-073-00		10K 100K	5% 5%	1/10W 1/10W				< SWITCH >			
R146	1-216-097-00		100K		1/10₩				(Switch)			
R147	1-216-049-91		1K	5%	1/10W		S634	1-554-303-21	SWITCH, TACTI	LE (CD)		
R148	1-216-049-91	METAL GLAZE	1K	5%	1/10W		S635		SWITCH, TACTI		DE)	
D. 10		NOMAL OF LED	•••				S636	1-554-303-21	SWITCH, TACTI	LE (REPEAT)		
R149	1-216-049-91		1K	5 %	1/10₩		****					
R150 R151	1-216-037-00 1-216-037-00		330 330	5% 5%	1/10W 1/10W		*****	*********	**********	*******	*****	******
R151	1-216-037-00		330	5%	1/10W		*	1-656-668-11	DBFB BOARD (N	300K)		
R153	1-216-089-00		47K	5%	1/10W			1 000 000 11	*******			
R154 R156	1-216-065-00 1-216-081-00		4. 7K 22K	5% 5%	1/10W 1/10W				< CAPACITOR >			
R157	1-216-069-00		6. 8K		1/10W]	C2101	1-124-925-11	ELECT	2. 2uF	20%	100V
R158	1-216-001-00		10	5%	1/10W			1-136-165-00		0. 1uF	20% 5%	50V
								1-136-165-00		0. 1uF	5%	50V
		< VARIABLE RESIS	STOR >			-		1-126-101-11		100uF	20%	16V
D1710*	1 041 000 11	DDC ID: MDT:	OI 135	0017		1	C2132	1-126-101-11	ELECT	100uF	20%	16V
		RES, ADJ, METAL RES, ADJ, METAL					C2133	1-124-902-00	ELECT	0. 47uF	20%	50 V

DBFB ECHO

Ref. No. P	Part No.	Description			Remark	Ref. No.	Part No.	Descriptio	<u>n</u>			Remark
C2152	1-124-925-11 1-136-165-00 1-136-165-00	FILM	2. 2uF 0. 1uF 0. 1uF	5%	100V 50V 50V		A-4377-149-A	ECHO BOARD *******				
(2133	1-130-165-00	< CONNECTOR >		<i>37</i> n	50 Y			< CAPACITO	R >			
		COMMECTOR	•			C1601	1-124-925-11	FLECT	2. 2uF	20%	100V	
		PLUG, CONNECT				C1602 C1603	1-124-443-00 1-164-159-11	ELECT CERAMIC	100uF 0. 1uF	20%	10V 50V	
		< DIODE >					1-161-494-00 1-124-903-11		0. 022uF 1uF	20%	25V 50V	
	8-719-987-63					ľ	1-130-475-00		0. 0022uF	5%	50V	
	8-719-000-78 8-719-000-78						1-162-302-11		0. 0022uF	20%	16V	
υ2103 (5-119-000-16	DIODE OST-	L2				1-130-493-00 1-136-165-00		0. 068uF 0. 1uF	5% 5%	50V 50V	
		< IC >					1-136-165-00		0. 1uF	5%	50V	
IC2101 8	8-759-634-51	IC M5218AP					1-124-477-11		47uF	20%	25V	
		∠ TDANCICTOD					1-130-493-00		0.068uF	5%	50V	
		< TRANSISTOR	,				1-162-305-11 1-130-480-00		0. 0068uF 0. 0056uF	20% 5%	16V 50V	
Q2101 8	8-729-119-78	TRANSISTOR	2SC2785-I	HFE			1-124-903-11		luF	20%	50V 50V	
	8-729-119-78		2SC2785-I							2070	00,	
	8-729-119-78		2SC2785-I				1-162-302-11		0. 0022uF	20%	16V	
Q2152 8	8-729-119-78	TRANSISTOR	2SC2785-I	HFE			1-124-903-11		luF	20%	50V	
		< RESISTOR >					1-162-282-31 1-162-282-31		100PF 100PF	10% 10%	50V 50V	
		(KLOTOTOK)					1-162-294-31		0.001uF	10%	50V 50V	
R2101 1	1-249-437-11	CARBON	47K 5%	1/4₩		02020	1 100 001 01	OBITAINITO	o. oorar	10/0	001	
	1-247-807-31		100 5%				1-162-294-31		0.001uF	10%	50V	
	1-249-429-11		10K 5%	1/4W			1-130-483-00		0. 01uF	5%	50V	
	1-247-863-91 1-247-903-00		22K 5% 1M 5%	1/4W 1/4W			1-124-925-11 1-162-290-31		2. 2uF	20%	100V	
1100 1	241 300 00	CAMBON	1111 370	1/3/			1-162-290-31		470PF 470PF	10% 10%	50V 50V	
	1-249-419-11		1.5K 5%	1/4W F	?					40.0		
	1-247-895-00		470K 5%	1/4W				< DIODE >				
	L-249-437-11 L-260-105-11		47K 5% 3. 3K 5%	1/4W 1/2W		D1601	8-719-987-63	DIODE 1NA	1148M			
	1-260-105-11		3. 3K 5%	1/2W		<i>D</i> 1001			114011			
R2133 1	-249-429-11	CARBON	10K 5%	1/4W	ļ			< IC >				
R2134 1	-249-429-11	CARBON	10K 5%	1/4W		IC1601	8-759-264-75	IC M65843	3P			
	-249-411-11		330 5%	1/4W		IC1602	8-759-634-51	IC M5218A	ıΡ			
	1-249-441-11 1-247-903-00		100K 5% 1M 5%	1/4W				/ COII >				
1/2131 1	1-247-903-00	CARDON	1M 5%	1/4W				< COIL >				
R2151 1	-249-437-11	CARBON	47K 5%	1/4W		L1601	1-410-521-11	INDUCTOR	100u	Н		
	-247-807-31		100 5%	1/4₩								
	-249-429-11 -247-863-91		10K 5%	1/4W				< TRANSISTO	OR >			
	-247-863-91 -247-903-00		22K 5% 1M 5%	1/4W 1/4W		P1601	1-247-903-00	CADDON	1M C	o/ 1	1 / 430	
N2100 1	. 21 700 00	CIMDON	III J/0	1/ 4:π	1		1-247-903-00		1M 5 15K 5		1/4W 1/4W	
R2156 1	-249-419-11	CARBON	1.5K 5%	1/4W F	·	R1603	1-249-431-11	CARBON	15K 5		1/4W	
	-247-895-00		470K 5%	1/4W	[R1604	1-249-431-11	CARBON	15K 5	% 1	1/4W	
K2158 1	-249-437-11	CARBON	47K 5%	1/4W		R1605	1-249-429-11	CARBON	10K 5	% 1	1/4W	
*******	******	******	*******	*******	******	R1606	1-247-863-91	CARBON	22K 5	k 1	1/4W	
	,,,,,,						1-249-431-11		15K 5		1/4m 1/4W	
						R1608	1-249-429-11	CARBON	10K 59		1/4W	
					ľ	R1609	1-249-431-11	CARBON	15K 59	% 1	L/4W	

ECHO H.P KEY CON

Ref. No.	Part No.	Description	<u>!</u>			Remark	Ref. No.	Part No.	Description				Remark
R1611	1-249-398-11	CARBON	27	5%	1/4W	F	C1447	1-136-165-00	FILM (). 1uF	5%	50V	
			* 0**	FA /	1 (177			1-124-907-11		l0uF	20%	50V	
	1-249-429-11 1-249-431-11				1/4W 1/4W		C1461	1-162-294-31	CERAMIC (). 001uF	10%	50V	
	1-249-437-11	-			1/4W		C1462	1-162-306-11	CERAMIC (). 01uF	20%	16V	
	1-249-417-11		1K		1/4W	F		1-162-600-11		0. 0047uF	20%	16V	
R1656	1-249-434-11	CARBON	27K	5%	1/4W			1-162-291-31 1-162-290-31		560PF 170PF	10% 10%	50V 50V	
R1681	1-249-427-11	CARBON	6.8K	5%	1/4W	F	01400	1 102 230 01	CDIMINIC	ITOIL	10%	301	
									< CONNECTOR	>			
		< VARIABLE	RESISTOR	? >			* CN1401	1-568-834-11	SOCKET CON	JECTOR 15	P		
RV1601	1-241-903-11	RES, VAR, O	CARBON 50	K			7 001401	1 500 004 11	Sociali, com	iberoit 13	1		
	1-241-903-11								< IC >				
		< VIBRATOR	>				101401	8-759-634-51	IC M5218AI	o			
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	,					8-759-634-51					
X1601	1-527-978-00	OSCILLATOR,	CERAMIC	(320k	Hz)		1	8-759-140-53					
******	******	*****	******	*****	*****	*****	IC1404	8-759-260-30	IC M658403	SP			
*********	***********								< COIL >				
*	1-654-647-11						1 1 401	1 410 501 11	INDUCTOR	100			
		******					L1401	1-410-521-11	INDUCTOR	100u	ın		
		< CAPACITOR	? >						< TRANSISTO	₹ >			
C1700	1-162-282-31	CEDANIC	100	DE	10%	50V	01401	8-729-900-80	TDANCICTOD	DTC114E	·c		
	1-162-282-31		100		10%	50V 50V	1 '	8-729-900-80		DTC114E			
		< CONNECTOR	₹ >						< RESISTOR :	>			
* CN1205	1-568-954-11	PIN, CONNEC	CTOR 5P				R1401	1-249-441-11	CARBON	100K 5	%	1/4W	
							I	1-249-441-11		100K 5		1/4W	
******	******	*******	*******	*****	*****	******		1-249-435-11 1-249-435-11		33K 5 33K 5		1/4W 1/4W	
	A-4377-151-A	KEY CON BOA	ARD, COMF	PLETE (N300K)		1	1-249-435-11				1/4W	
		*******	******	*****	*****		D1 100	1 0 47 000 01	CIPPON	0017 5	•	1 (470	
		< CAPACITOR	? >				1	1-247-863-91 1-247-863-91		22K 5 22K 5		1/4W 1/4W	
		CAI ACTIO	,					1-247-863-91		22K 5		1/4W	
C1401	1-130-491-00	MYLAR	0. 047uF	5%	50 V		i	1-247-863-91		22K 5	%	1/4W	
	1-124-907-11		10uF	20%	50V		R1410	1-249-429-11	CARBON	10K 5	%	1/4₩	
	1-124-907-11 1-124-907-11		10uF 10uF	20% 20%	50V 50V		R1411	1-247-903-00	CARBON	1 M 5	%	1/4W	
	1-124-907-11		10uF	20%	50V			1-247-863-91		22K 5		1/4W	
							1	1-247-863-91		22K 5		1/4W	
	1-124-907-11		10uF	20%	50V			1-249-441-11		100K 5		1/4W	
	1-130-493-00 1-130-493-00		0. 068uF 0. 068uF	5% 5%	50V 50V		K1416	1-249-441-11	CARBON	100K 5	ኤ .	1/4₩	
	1-130-493-00		0. 068uF	5%	50V		R1417	1-249-429-11	CARBON	10K 5	%	1/4W	
	1-162-211-31		33PF	5%	50V			1-249-417-11		1K 5		1/4W	F
	::		000=					1-249-429-11		10K 5		1/4W	_
	1-162-211-31		33PF	5% 20%	50V			1-249-417-11		1K 5		1/4₩	F
	1-126-803-11 1-164-159-11		47uF 0. 1uF	20%	10V 50V		R1424	1-249-429-11	CARDUN	10K 5	<i>7</i> 0 .	1/4₩	
	1-124-443-00		100uF	20%	107		R1431	1-259-884-11	CARBON	4.7M 5	%	1/4W	
	1-124-907-11		10uF	20%	50V		R1434	1-247-903-00	CARBON	1M 5		1/4W	
		DIII:	0 1 5		F.C			1-247-807-31		100 5		1/4W	
	1-136-165-00 1-136-165-00		0. 1uF 0. 1uF	5 % 5 %	50V 50V			1-247-807-31 1-247-807-31		100 5 100 5		1/4W 1/4W	
C1440	1-190-109-00	T. T.PM	v. 1ur	J/0	301		1 K1436	1-641-001-31	CARDON	100 2	70 .	1/47	

KEY CON LEAF SWITCH LOADING MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description		Remark
R1449	1-249-429-11 1-249-429-11 1-249-441-11	CARBON	10K 55 10K 55 100K 55	% 1.	/4W /4W /4W			1-645-721-11	LOADING BOARD		
R1451	1-249-429-11 1-249-425-11	CARBON	10K 59	% 1.	/4W /4W F				< CONNECTOR >		
	1-249-429-11		10K 59		/4W		* CN151	1-568-943-11	PIN, CONNECTOR	5P	
R1457	1-249-424-11 1-249-431-11	CARBON	3. 9K 59	% 1.	/4W F /4W F				< SWITCH >		
R1459	1-249-429-11 1-247-863-91	CARBON	10K 59 22K 59	6 1,	/4W /4W /4W		S271 S272		SWITCH, LEAF (L SWITCH, LEAF (L	,	
		< VIBRATOR >					******	******	*******	********	*****
X1101	1-567-927-11	VIBLATOR, CER	RAMIC (16	SMHz)			*	A-4377-116-A	MAIN BOARD, COM. ********	•	-,,
******	********	**********	*******	*****	*****	******	*	A-4377-140-A	MAIN BOARD, COM		
*	1-650-669-11	LEAF SWITCH E					*	A-4377-461-A	MAIN BOARD, COM		
*	3-381-776-01	HOLDER (LED)						1011 101 11	*******		•
	0 001 110 01	< CONNECTOR >	>				*	A-4377-599-A	MAIN BOARD, COM		-,
* CN1001	1-568-854-11	SOCKET, CONNE	ECTOR 11F	•			*	A-4377-607-A	MAIN BOARD, COMI		
		< TRANSISTOR	>					A 4277 C20 A			
	8-719-710-02 8-719-710-02		PHOTO RE				*	A-4311-03U-A	MAIN BOARD, COM! **********		
		< RESISTOR >					*	A-4377-632-A	MAIN BOARD, COMI **********		
R1002	1-249-412-11 1-249-412-11 1-249-414-11	CARBON	390 390 560	5% 5% 5%	1/4W 1/4W 1/4W	F	*		MAIN BOARD, COMF	•	,
R1004	1-247-834-11 1-247-818-11	CARBON	1. 3K 300		1/4W 1/4W	r			< CAPACITOR >		
		< SWITCH >						1-162-306-11 1-124-477-11			16V 25V EP, UK, G, IT)
		SWITCH, PUSH SWITCH, PUSH					C2	1-126-934-11		uF 20%	16V
S1003	1-572-248-11	SWITCH, LEAF	(A HALF)	DILAI	,		C3 C4	1-162-306-11 1-162-306-11)luF 30%)luF 30%	16V 16V
		SWITCH, LEAF SWITCH, LEAF	, ,				C5	1-162-306-11	CERAMIC 0.0	luF 30%	16V
\$1006	1-572-248-11	SWITCH, LEAF	(R HALF)					1-162-306-11 1-162-306-11		luF 30%	16V
S1008	1-571-281-21	SWITCH, LEAF	(B CrO ₂)				C8	1-162-306-11	CERAMIC 0.0	luF 30%	16V 16V
S1009	1-571-281-21	SWITCH, LEAF	(REC B)				C9	1-101-004-00	CERAMIC 0.0	luF	50V , CIS/N300K)
******	******	******	******	*****	*****	******				(11000122	, 010/ 1100011/
								1-162-306-11 1-124-477-11			16V 25V
							C12	1-126-934-11	ELECT 220		EP, UK, G, IT) 16V
							C13	1-162-306-11	CERAMIC 0.0	1uF 30%	16V
						l	C14	1-162-306-11	CERAMIC 0.0	1uF 30%	16V

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description			i	Remark
C15	1-164-159-11	CEDAMIC	0. luF		50V		C49	1-162-306-11	CEDANIC	0. 01uF	30%	16V	
C15	1-104-139-11		10uF	20%	50V		(43	1-102-300-11	CERAMIC	o. orar	30%		OK:EA)
C10	1-124-902-00		0. 47uF	20%	50V		C51	1-164-031-11	CERAMIC	33PF	5%	50V	JK:EA)
C18	1-124-903-11		luF	20%	50V		C52	1-164-027-11		22PF	5%	50V	
C18	1-124-903-11		luF	20%	50V		C32	1 104 021-11	CERAMIC	221 T	3 <i>1</i> 0	301	
CIS	1-124-905-11	BEECI	Tur	20%	301		C53	1-162-306-11	CEDAMIC	0. 01uF	30%	16V	
C20	1-124-907-11	EI ECT	10uF	20%	50V		C54	1-124-477-11		47uF	20%	25V	
C21	1-124-907-11		10uF	20%	50V		C55	1-162-294-31		0.001uF	10%	50V	
C22	1-124-907-11		10uF	20%	50V		C56	1-162-306-11		0. 001uF	30%	16V	
C22	1-124-907-11		10uF	20%	50V		C57	1-162-306-11		0. 01uF	30%	16V	
C23	1-137-436-11		0. 0039uF	5%		(N300)	Cor	1102-200-11	CERAMIC	0. 01ur	30%	101	
C24	1 157 450 11	IILM	0. 000Jul	370	301	(11300)	C58	1-162-306-11	CERAMIC	0. 01uF	30%	16V	
C25	1-137-436-11	FILM	0. 0039uF	5%	50V	(N300)	C61	1-124-925-11		2. 2uF	20%	100V	
C26	1-136-158-00		0. 027uF	5%	50V	(11000)	C62	1-164-159-11		0. 1uF	20%	50V	
020	1 100 100 00	1120		(N300:EE		/N3UUK)	C63	1-162-306-11		0. 1ur 0. 01uF	30%	16V	
C26	1-136-160-00	FILM	0. 039uF	5%	50V	1100011)	C68	1-162-306-11		0. 01uF	30%	16V	
000	1 100 100 00	1 1 2	0.00001	(N300:A		(. G. IT)		1 100 000 11	CDITAMITE	o. orar	00/0	101	
C27	1-136-158-00	FILM	0. 027uF	5%	50V	., 0, 11,	C69	1-126-934-11	ELECT	220uF	20%	16V	
021	1 100 100 00	1 12		N300:EE		/N300K)	C71	1-136-173-00		0. 47uF	5%	50V	
C27	1-136-160-00	FILM	0. 039uF	5%	50V		011	1 100 110 00	1 1 1 1 1 1		300:AEP,		E CIS)
021	1 100 100 00			(N300:A		(. G. IT)	C72	1-161-494-00	CERAMIC	0. 022uF	, ,	25V	2, 010)
				(,	., 0, 11,	, · ·	1 101 101 00	ODIUMITO		300:AEP,		E CIS)
C28	1-124-903-11	ELECT	luF	20%	50V		C73	1-161-494-00	CERAMIC	0. 022uF	, ,	25V	3, 010)
C29	1-162-294-31		0.001uF	10%	50V		0,0	1 101 101 00	CDITIMITO		300:AEP,		e CIS)
C30	1-162-600-11		0. 0047uF	30%	167		C95	1-124-907-11	FLECT	10uF	20%	50V	<i>J</i> , CIO)
C31	1-124-477-11		47uF	20%	25V			1 101 001 11	BBBCI	Tour	2070		0:CIS)
C32	1-126-962-11		3. 3uF	20%	50V							(11000	,.(15)
002	1 100 000 11	22201	******		•••		C96	1-124-907-11	ELECT	10uF	20%	50V	
C33	1-162-306-11	CERAMIC	0. 01uF	30%	16V				22201	1001	20%		O:CIS)
C34	1-126-933-11		100uF	20%	10V		C701	1-137-368-11	FILM	0.0047uF	5%	50V	,,,,,,
C35	1-162-306-11		0. 01uF	30%	16V		C702	1-162-290-31		470PF	10%	50V	
C37	1-162-199-31		10PF	5%	50V		C703	1-137-399-11		0. luF			(N300)
					(N30	OK:EA)	C705	1-124-903-11		luF		50V	(1.000)
C38	1-162-211-31	CERAMIC	33PF	5%	50 V								
				(N300:A	EP, UK	(, G, IT)	C706	1-124-902-00	ELECT	0. 47uF	20%	50V	
							C707	1-124-907-11		10uF		50V	
C39	1-162-195-31	CERAMIC	4. 7PF	10%	50V		C710	1-124-907-11	ELECT	10uF		50V	
					(N30	0K:EA)	C711	1-124-903-11	ELECT	luF	20%	50V	
C40	1-101-005-00	CERAMIC	22000PF		50V		C712	1-124-443-00	ELECT	100uF	20%	10V	
C41	1-164-159-11		0. 1uF		50V								
		(N300:AEP, U	K, EE, CI	S/N30	00K:EA)	C801	1-137-368-11	FILM	0.0047uF	5%	50V	
C42	1-162-196-31	CERAMIC	5. 6PF	10%	50V		C802	1-162-290-31		470PF	10%	50V	
			(N	300:AEP,	, UK, E	E, CIS)	C803	1-137-399-11	FILM	0. 1uF	5%	50V ((N300)
C42	1-162-198-31	CERAMIC	8. 2PF	10%	50V		C805	1-124-903-11	ELECT	luF	20%	50V	
				(N300:	G, IT/	N300K)	C806	1-124-902-00	ELECT	0. 47uF	20%	50V	
C43	1-162-306-11		0. 01uF	30%	16V		C807	1-124-907-11		10uF	20%	50V	
C44	1-102-120-00	CERAMIC	0. 0018uF		50V		C810	1-124-907-11		10uF		50V	
				300: AEP,		E, CIS)	C811	1-124-903-11		luF		50V	
C45	1-162-301-11	CERAMIC	0. 0015uF		167		C812	1-124-443-00		100uF		10V	
				300: AEP,		E, CIS)	C901	1-164-159-11	CERAMIC	0. 1uF		50V	
C46	1-101-005-00	CERAMIC	22000PF		50V								
				300: AEP,		E, CIS)	C902	1-164-159-11		0. 1uF		50V	
C46	1-101-006-00	CERAMIC	0. 047uF		50V		C903	1-164-159-11		0. 1uF		50V	
					(N30	OK:EA)	C906	1-126-101-11		100uF		16V	(11000)
C 1=	1 100 100 00	DIII	0 050 5	50 /	F 017			1-162-288-31		330PF			(N300)
C47	1-136-162-00	rilM	0. 056uF	5%	50V	OK EV	C1003	1-162-282-31	CERAMIC	100PF	10%	50V	
0.10	1 104 150 **	CEDANIC	0. 1 ₀ E			0K:EA)	01007	1 100 000 0:	OPPLINTO	10000	1.00/	F 011	
C48	1-164-159-11	CERAMIC	0. 1uF		50V	(43.30)		1-162-282-31		100PF		50V	
					(ทงป	OK:EA)	C1005	1-124-927-11	ELECI	4. 7uF	20%	100V	

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
C1006	1-162-600-11	CERAMIC	0.0047uF	30%	167		C1299	1-137-375-11	FILM	0. 068uF	5%	50V	(N300)
	1-162-301-11		0.0015uF	30%	16V		C1300	1-162-294-31	CERAMIC	0.001uF	10%		(N300)
C1008	1-124-902-00	ELECT	0. 47uF	20%	50 V		C1301	1-136-169-00	FILM	0. 22uF	5%	50V	
C1009	1-126-803-11	ELECT	47uF	20%	10V	(N300)	C1302	1-136-169-00	FIIM	0. 22uF	5%	50V	
	1-162-306-11		0. 01uF	30%	167	(1.000)	1	1-126-974-11		3300uF	20%	50V	
C1021	1-162-286-21	CERAMIC	220PF	10%	50V	(N300)		1-126-974-11		3300uF	20%	50V	
	1-124-907-11		10uF	20%	50V			1-126-105-11		1000uF	20%	35V	
C1034	1-124-907-11	ELECT	10uF	20%	50V		C1306	1-124-477-11	ELECT	47uF	20%	25V	
C1049	1-124-907-11	ELECT	10uF	20%	50V		C1307	1-124-477-11	ELECT	47uF	20%	25V	
C1051	1-162-288-31	CERAMIC	330PF	10%	50V	(N300)		1-124-122-11		100uF	20%	50V	
	1-162-282-31		100PF	10%	50V			1-124-122-11		100uF	20%	50V	
	1-162-282-31		100PF	10%	50V			1-124-907-11		10uF	20%	50V	
C1055	1-124-927-11	ELECT	4. 7uF	20%	100V	1	C1327	1-124-907-11	ELECT	10uF	20%	50V	
C1056	1-162-600-11	CERAMIC	0.0047uF	30%	16V		C1331	1-136-165-00	FILM	0. IuF	5%	50V	
	1-162-301-11		0.0015uF	30%	16V			1-136-165-00		0. luF	5%	50V	
	1-124-902-00		0. 47uF	20%	50V			1-126-946-11		6800uF	20%	25V	
	1-126-803-11		47uF	20%		(N300)		1-124-636-00		3300uF	20%	25V	
C1060	1-162-306-11	CERAMIC	0.01uF	30%	16V		C1341	1-124-907-11	ELECT	10uF	20%	50V	
C1071	1-162-286-21	CERAMIC	220PF	10%	50V	(N300)	C1342	1-124-902-00	ELECT	0. 47uF	20%	50V	
	1-124-907-11		10uF	20%	50V			1-124-903-11		1uF	20%	50V	
	1-137-440-11		0. 018uF	5%	50V			1-162-306-11		0. 01uF	30%	16V	
	1-124-903-11 1-162-302-11		1uF 0. 0022uF	20%	50V			1-124-907-11		10uF	20%	50V	
C1103	1-102-302-11	CERAMIC	0. 0022ur	30%	16V		C1301	1-126-176-11	ELECI	220uF	20%	10V	
	1-137-443-11		0. 056uF	5%	50V		C1362	1-126-176-11	ELECT	220uF	20%	10V	
	1-162-600-11			30%	16V			1-126-925-11		470uF	20%	107	
	1-136-171-00		0. 33uF	5%	50V	İ	C1371	1-124-477-11	ELECT	47uF	20%	25V	
	1-136-169-00 1-124-907-11		0. 22uF 10uF	5% 20%	50V 50V		C127F	1-124-907-11	DI DOT	10. P			P2, UK)
CIISI	1-124-501-11	ELECI	Tour	20%	301			1-124-907-11		10uF 47uF	20% 20%	50V 10V	
C1133	1-162-306-11	CERAMIC	0. 01uF	30%	16V		01010	1 120 000 11	BEBCI	TIUL	2070	101	
C1136	1-164-159-11	CERAMIC	0. 1uF		50V		C1381	1-124-898-11	ELECT	4700uF	20%	16V	
	1-164-159-11		0. 1uF		50V			1-124-471-00		1000uF	20%	6.3V	
	1-137-440-11		0. 018uF	5%	50V	Ì		1-162-294-31		0. 001uF	10%	50V	
C1152	1-124-903-11	ELECT	luF	20%	50V			1-124-477-11		47uF	20%	25V	
C1153	1-162-302-11	CERAMIC	0. 0022uF	30%	16V		C1500	1-136-165-00	LILM	0. 1uF	5%	50V	
	1-137-443-11		0. 056uF	5%	50V		C1507	1-162-294-31	CERAMIC	0. 001uF	10%	50V	
	1-162-600-11		0.0047uF	30%	16V		C1511	1-102-947-00	CERAMIC	10PF	5%	50V	
	1-136-171-00			5%	50V	[1-102-947-00		10PF	5%	50V	
C1157	1-136-169-00	FILM	0. 22uF	5%	50V	İ		1-162-290-31		470PF	10%	50V	
C1161	1-164-159-11	CERAMIC	0. 1uF		50V		C1105	1-137-368-11	r I LM	0. 0047uF	5%	50V	
	1-124-907-11			20%	50V	ŀ	C1755	1-137-368-11	FILM	0. 0047uF	5%	50V	
	1-162-306-11			30%	16V			1-124-907-11		10uF		50V	
C1191	1-124-907-11	ELECT	10uF	20%	50V	ŀ	C1802	1-162-306-11		0. 01uF		16V	
C1221	1-124-443-00	ELECT	100uF	20%	10V			1-124-925-11		2. 2uF		100V	
C1999	1-126-176-11	FI FCT	220uF	20%	10V		C1901	1-162-306-11	CERAMIC	0. 01uF	30%	16V	
	1-126-176-11			20%	10V		C1902	1-137-372-11	FILM	0. 022uF	5%	50V	
	1-124-925-11			20%	1007		01302	1 107 012-11	1 1 Litt	v. v&&ur	J/0	201	
	1-137-375-11			5%		(N300)			< FILTER >				
C1249	1-137-375-11	FILM	0.068uF	5 %	50V	(N300)	on:						
C1250	1-162-294-31	CEDAMIC	0. 001uF	10%	50V	(N300)		1-567-389-11	•				
	1-102-294-31			10% 5%		(N300) (N300)	CrZ	1-760-393-11	rilier, CEKAM		z (N300: AE	און ק	G IT)
0.100						,/ I				,	(. , on,	u, 11)

CF3 1-567-389-11 FILTER, CERAMIC 10. 7MHz (N300:EE, CIS/N300K) CF3 1-760-393-11 FILTER, CERAMIC 10. 7MHz (N300:AEP, UK, G, IT) CF4 1-760-220-11 FILTER, CERAMIC 10. 7MHz (N300:AEP, UK, G, IT) CF5 1-527-981-00 FILTER, CERAMIC 450kHz (Pf 1-577-075-11 OSCILLATOR, CERAMIC 456kHz) CF3 1-567-389-11 FILTER, CERAMIC 10. 7MHz (N300:AEP, UK, G, IT) CR300:AEP, UK, G, IT) D1364 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1371 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1373 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1374 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1375 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1376 8-719-200-82 DIODE 11ES2	
CF3 1-760-393-11 FILTER, CERAMIC 10. 7MHz (N300:AEP, UK, G, IT) CF4 1-760-220-11 FILTER, CERAMIC 10. 7MHz CF5 1-527-981-00 FILTER, CERAMIC 450kHz D1372 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1373 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1374 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1375 8-719-200-82 DIODE 11ES2	
CF4 1-760-220-11 FILTER, CERAMIC 10.7MHz D1373 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1374 8-719-200-82 DIODE 11ES2 (N300:AEP2, UK) D1375 8-719-200-82 DIODE 11ES2	
CF5 1-527-981-00 FILTER, CERAMIC 450kHz D1375 8-719-200-82 DIODE · 11ES2	
OF 1-377-013-11 OOCIDENTON, CENNING 430KHZ D1370 0-713-200-02 D100E 11E34	
< CONNECTOR > D1377 8-719-200-82 DIODE 11ES2	
CN1 1-750-418-11 CONNECTOR, FFC/FPC 13P (N300:CIS) D1378 8-719-200-82 DIODE 11ES2 D1381 8-719-200-82 DIODE 11ES2	
CN901 1-568-838-11 SOCKET, CONNECTOR 21P D1382 8-719-200-82 DIODE 11ES2	
* CN902 1-568-830-11 SOCKET, CONNECTOR 11P D1383 8-719-200-82 DIODE 11ES2	
* CN903 1-560-061-00 PIN, CONNECTOR 3P * CN1003 1-568-955-11 PIN, CONNECTOR 6P (N300K) D1501 8-719-200-82 DIODE 11ES2	
D1502 8-719-987-63 DIODE 1N4148M	
* CN1006 1-568-834-11 SOCKET, CONNECTOR 15P (N300K) D1503 8-719-200-82 DIODE 11ES2	
* CN1301 1-564-512-11 PLUG, CONNECTOR 9P D1511 8-719-987-63 DIODE 1N4148M * CN1302 1-564-509-11 PLUG, CONNECTOR 6P D1521 8-719-987-63 DIODE 1N4148M	
* CN1371 1-566-210-11 PIN, CONNECTOR 3P (N300:AEP2, UK)	
* CN1501 1-568-834-11 SOCKET, CONNECTOR 15P D1525 8-719-987-63 DIODE 1N4148M	
D1704 8-719-987-63 DIODE 1N4148M	
CN1701 1-770-067-11 CONNECTOR, FFC/FPC 19P D1705 8-719-987-63 DIODE 1N4148M * CN1901 1-568-954-11 PIN, CONNECTOR 5P D1901 8-719-010-33 DIODE UZ-4.7BSB-TA	
< TRIMMER > < FRONTEND >	
CT1 1-141-227-00 CAP, TRIMMER 20PF (N300K:EA) FE1 1-693-090-51 FRONT END (FM) (2 GANG) (N300K)	
CT2 1-141-227-00 CAP, TRIMMER 20PF (N300K:EA) FE1 1-693-217-11 FRONT END (4 GANG) (N300:AEP, UK, FE1 1-693-244-21 FRONT END (3 GANG) (N300:EE, CIS)	G, IT)
< DIODE >	
C IC > D1 8-719-987-63 DIODE 1N4148M	
D2 8-719-987-63 DIODE 1N4148M (N300:CIS) IC1 8-759-200-60 IC TA7060AP (N300:AEP, UK, G, IT	
D3 8-719-987-63 DIODE 1N4148M (N300:CIS) IC2 8-759-200-60 IC TA7060AP (N300:AEP, UK, G, IT	
D5 8-719-976-30 DIODE KV1560N (N300K:EA) IC3 8-759-176-03 IC LA1835	
D901 8-719-933-54 DIODE HZS9A2L IC51 8-759-288-54 IC LC72130 IC901 8-759-289-38 IC HA12195NT (N300)	
D1204 8-719-987-63 DIODE 1N4148M	
D1205 8-719-987-63 DIODE 1N4148M IC901 8-759-289-39 IC HA12196NT (N300K)	
D1303 8-719-028-23 DIODE D3SBA20-4101 IC902 8-759-822-09 IC LB1641 D1306 8-719-001-43 DIODE UZL-11M1-TA IC1001 8-759-634-51 IC M5218AP	
D1306 8-719-001-43 DIODE UZL-11M1-TA IC1001 8-759-634-51 IC M5218AP D1309 8-719-987-63 DIODE 1N4148M IC1002 8-759-000-48 IC MC14052BCP	
IC1003 8-759-140-53 IC uPD4053BC	
D1310 8-719-987-63 DIODE 1N4148M	
D1311 8-719-200-82 DIODE 11ES2 IC1051 8-759-335-99 IC TMP87CP64F D1321 8-719-200-82 DIODE 11ES2 IC1101 8-759-291-98 IC M62423FP	
D1321 8-719-200-82 DIODE 11ES2 IC1101 8-759-291-98 IC M62423FP IC1322 8-719-200-82 DIODE 11ES2 IC1131 8-759-281-42 IC TC9210P	
D1323 8-719-934-18 LED HZS27-2L IC1202 8-759-111-68 IC uPC1237HA	
D1201 0 710 200 02 DIODE 10E2	
D1331 8-719-200-02 DIODE 10E2 IC1341 8-759-820-13 IC L78MR06 D1332 8-719-200-02 DIODE 10E2 IC1355 8-759-604-30 IC M5F7808	
D1333 8-719-200-02 D10DE 10E2 IC1502 8-759-269-92 IC SN74HCU04ANS-E20	
D1334 8-719-200-02 DIODE 10E2 IC1901 8-759-822-09 IC LB1641	
D1341 8-719-987-63 DIODE 1N4148M	
D1361 8-719-987-63 DIODE 1N4148M	
D1362 8-719-987-63 DIODE 1N4148M IFT1 1-409-636-11 TRANSFORMER, IF (CERAMIC FILTER)	
D1363 8-719-200-82 DIODE 11ES2	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description		Remark
		< JACK >		Q912	8-729-900-65	TRANSISTOR	DTA144ES	
* J1001	1-580-912-11	JACK, PIN 4P (PHONO IN/VIDEO IN) < COIL >		Q1002 Q1003	8-729-900-80 8-729-900-80 8-729-900-80	TRANSISTOR TRANSISTOR	DTC114ES DTC114ES DTC114ES	
L1 L1	1-407-500-00 1-410-688-31		IS)		8-729-900-80 8-729-119-78		DTC114ES 2SC2785-	HFE
L2 L31 L1201	1-410-336-11 1-414-142-11 1-420-872-00		IS)	Q1103 Q1151	8-729-119-78 8-729-900-63 8-729-119-78 8-729-119-78	TRANSISTOR TRANSISTOR	2SC2785-1 DTA124ES 2SC2785-1 2SC2785-1	HFE
	1-420-872-00 1-410-509-11	COIL, AIR-CORE (N300) INDUCTOR 10uH		Q1204	8-729-900-63	TRANSISTOR	DTA124ES	in E
		< LOW PASS FILTER >		Q1206	8-729-900-36 8-729-900-36 8-729-111-29	TRANSISTOR	DTC124ES DTC124ES 2SD1616A	-K
LPF1 LPF2		FILTER, LOW PASS (N300) FILTER, LOW PASS (N300)		Q1303	8-729-900-36 8-729-118-00	TRANSISTOR	DTC124ES 2SB1116-1	
		< TRANSISTOR >			8-729-118-00 8-729-118-00		2SB1116-1 2SB1116-1	
Q1	8-729-230-99	(N300:EE, CIS/N	N300K)	Q1501	8-729-900-36 8-729-119-78	TRANSISTOR	DTC124ES 2SC2785-I	HFE
Q2 Q3	8-729-230-99 8-729-230-99	(N300:EE, CIS/N	N300K)		8-729-119-76 8-729-119-78		2SA1175-I 2SC2785-I	
Q4	8-729-230-99		·	-		< RESISTOR >		
Q5	8-729-422-57	(N300:EE, CIS/N TRANSISTOR UN4111	1300K)	R1	1-249-411-11	CARBON	330 5%	1/4W (N300: AEP, UK, G, IT)
Q6	8-729-119-76	(N300:AEP, UK, EE, CIS/N300	OK:EA)	R2	1-249-411-11	CARBON	330 5%	1/4W (N300: AEP, UK, G, IT)
Q7 Q8	8-729-119-76 8-729-900-80	(N300: AEP, UK, EE, CIS/N300	OK:EA)	/	1-249-401-11	CARBON	47 5% 330 5%	1/4W F 1/4W
Q 9	8-729-900-80	(N300: AEP, UK, EE, CIS/N300	K:EA)		1-247-863-91 1-249-411-11		22K 5% 330 5%	1/4W 1/4W
Q10	8-729-900-80			R8	1-249-411-11			1/4W (N300:EE, CIS/N300K)
Q11	8-729-900-80	(N300: AEP, UK, EE, CIS/N300 TRANSISTOR DTC114ES	K:EA)	R9 R10 R11	1-247-863-91 1-249-411-11 1-247-863-91	CARBON	22K 5% 330 5% 22K 5%	1/4W 1/4W 1/4W
Q701	8-729-119-78	(N300:AEP, UK, EE, CIS/N300 TRANSISTOR 2SC2785-HFE	K:EA)	R12	1-249-411-11	CARBON	330 5%	1/4W
Q801 Q901 Q902	8-729-119-78 8-729-119-78 8-729-900-65	TRANSISTOR 2SC2785-HFE			1-249-411-11 1-247-863-91			1/4W (N300:EE, CIS/N300K)
Q903	8-729-801-93			<u>^</u> R15	1-249-405-11 1-249-442-11	CARBON	22K 5% 100 5% 510 5%	1/4W 1/4W F 1/4W
Q904 Q905 Q906	8-729-116-83 8-729-116-83 8-729-900-80	TRANSISTOR 2SD1616-K(N300:AEP, UK,			1-249-403-11		68 5%	1/4W F
Q907	8-729-422-57			R19	1-249-423-11 1-249-441-11 1-249-429-11	CARBON	3. 3K 5% 100K 5% 10K 5%	1/4W F 1/4W 1/4W
Q908 Q909	8-729-119-76 8-729-900-80	TRANSISTOR DTC114ES		R21	1-249-425-11	CARBON	4.7K 5%	1/4W F
Q910 Q911	8-729-900-65 8-729-900-65		ļ		1-249-425-11 1-249-425-11		4. 7K 5% 4. 7K 5%	1/4W F 1/4W F

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.

Replace only with part number specified.



Dof No	Dont No	Description			Rema	k Ref. No.	Part No.	Description				Domonic
Ref. No.	Part No.	Description			Rema	K Rel. No.	rait No.	Description				Remark
R24	1-249-425-11		4. 7K		1/4W F	R702	1-249-431-11	CARBON	15K	5%	1/4W	
R25	1-249-429-11		10K	5%	1/4W	D702	1 215 451 00	METAL	1.017	10/	1 / 4 107	(N200)
R26	1-249-429-11		10K	5%	1/4W	R703	1-215-451-00		18K	1%		(N300)
			(N3UU:A	iep, uk,	, EE, CIS/N300K:E		1-249-428-11		8. 2K		1/4W	
D.40	1 040 305 11	CADDON	15		1 / AW TO	R705	1-249-425-11		4. 7K		1/4W	r
R40	1-249-395-11	CARBON	15	5%	1/4W F (N300K:E	R706	1-249-429-11		10K	5%	1/4W	
R40	1-249-399-11	CADRON	33	5%	1/4W F	A) R707	1-249-429-11	CARDON	10K	5%	1/4W	
1140	1-245-355-11	CARDON	00		00/N300K:E, MY, S	P) R708	1-249-429-11	CARRON	10K	5%	1/4W	
R41	1-249-429-11	CARRON	10K	5%	1/4W	R709	1-249-429-11		10K	5%	1/4W	
1111	1 240 420 11				EE, CIS/N300K:E		1-249-429-11		10K	5%	1/4W	
R42	1-249-429-11		10K	5%	1/4W	R711	1-249-429-11		10K	5%	1/4W	
	1 210 120 11				EE, CIS/N300K:E	1	1-249-429-11		10K	5%	1/4W	
R43	1-249-441-11		100K		1/4W	"	1 2 10 100 11	cbu.	10.1	0,0	2, 1	
					-,	R713	1-249-429-11	CARBON	10K	5%	1/4W	
R44	1-249-425-11	CARBON	4.7K	5%	1/4W F	R714	1-249-420-11		1. 8K		1/4W	F
					EE, CIS/N300K:E		1-247-863-91		22K	5%	1/4W	
R45	1-249-437-11		47K	5%	1/4W	R716	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R46	1-247-903-00	CARBON	1M	5%	1/4₩	R717	1-249-428-11	CARBON	8. 2K		1/4W	
				(N3	00:AEP, UK, EE, CI	S)						
R47	1-247-863-91	CARBON	22K	5%	1/4W	R718	1-249-417-11	CARBON	1K	5%	1/4W	F
				(N3	00:AEP, UK, EE, CI		1-249-430-11	CARBON	12K	5%	1/4W	
R47	1-249-433-11	CARBON	22K	5%	1/4W (N300K:E	· 1	1-249-431-11		15K	5%	1/4W	
						R804	1-249-428-11		8. 2K		1/4W	
R48	1-247-903-00		1M	5%	1/4W (N300K:E	(A) R805	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R48	1-249-437-11	CARBON	47K	5%	1/4W							
^ == ^		010001			00:AEP, UK, EE, CI	I	1-247-882-11		130K		1/4W	
<u>1</u> R50	1-249-401-11		47	5%	1/4W F	R807	1-247-866-11		30K	5%	1/4W	
R51	1-249-423-11		3. 3K	5%	1/4W F	R808	1-247-864-11		24K	5%	1/4W	(11200)
R52	1-249-429-11	CARBON	10K	5%	1/4W	R809	1-249-429-11		10K	5% 5%		(N300)
DE 2	1-249-429-11	CADDON	10K	5%	1/4W	R814	1-249-420-11	CARBON	1.8K	5%	1/4W	r
R53 R55	1-249-429-11		10K	5% 5%	1/4W	R815	1-247-863-91	CADDOM	22K	5%	1/4W	
R56	1-249-417-11		16K	5%	1/4W F	R816	1-249-421-11		2. 2K		1/4W	r
NOU	1 245 411 11				EE, CIS/N300K:E		1-249-428-11		8. 2K		1/4W	
R57	1-249-429-11		10K	5%	1/4₩	R818	1-249-417-11		1K	5%	1/4W	
	1 2 10 120 11				EE, CIS/N300K:E		1-249-425-11		4. 7K		1/4W	
R58	1-249-417-11		1K	5%	1/4W F	,			,	0.0	2, 2	•
						R902	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R59	1-249-417-11	CARBON	1K	5%	1/4W F	R903	1-249-425-11	CARBON	4.7K		1/4₩	
⚠ R60	1-249-405-11	CARBON	100	5%	1/4W F	R904	1-249-417-11	CARBON	1 K	5%	1/4W	F
R61	1-249-423-11	CARBON	3.3K	5%	1/4W F	R905	1-249-437-11	CARBON	47K	5%	1/4W	
R62	1-249-425-11		4.7K		1/4W F	R906	1-249-437-11	CARBON	47K	5%	1/4₩	
R63	1-249-425-11	CARBON	4.7K	5%	1/4W F							
		0.10001	,		1 / 4 m = 5	R907	1-249-437-11		47K	5%	1/4W	
R64	1-249-425-11		4. 7K		1/4W F	R908	1-249-437-11		47K	5%	1/4W	
R65	1-247-807-31		100	5%	1/4W	R914	1-247-863-91		22K	5%	1/4W	
R66	1-249-425-11		4.7K		1/4W F	R915	1-247-863-91		22K	5%	1/4W	
R71	1-249-423-11	CARBON	3. 3K		1/4W F	R916	1-249-411-11	CARBON	330	5%	1/4W	
D70	1 047 000 01	CADDON	0.017		00:AEP, UK, EE, CIS	· .	1 040 407 11	CADDON	0 017	50 /		_
R72	1-247-863-91	CARBON	22K	5% (N20	1/4W	R917	1-249-427-11		6. 8K		1/4W	r
				(IV3)	00:AEP, UK, EE, CIS	R918 R920	1-249-429-11 1-249-429-11		10K	5%	1/4W	
R73	1-249-425-11	CARRON	4. 7K	5%	1/4W F	R920	1-249-429-11		10K	5% 5%	1/4W	E.
N/J	1 643-460-11	CUITOON	7. (N		1/4# r 00:AEP, UK, EE, CIS		1-249-417-11		1K 1K	5% 5%	1/4W	r F (N300)
R74	1-249-425-11	CARBON	4. 7K		1/4W F	1 11366	1 445 411-11	CHILDON	11/	J/0	1/41	r (11000)
11.17	. 010 100 II	Campon	111		00:AEP, UK, EE, CIS	R923	1-249-417-11	CARBON	1K	5%	1 / A W	F (N300)
R75	1-249-425-11	CARBON	4. 7K		1/4W F	R924	1-249-381-11		1	5%	1/4W	
	11				00:AEP, UK, EE, CIS	1	1 2.0 001 11		•			P, UK, G, IT)
R701	1-249-430-11	CARBON	12K	5%	1/4W					`		· , ·, ·-, · * * /

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Replace only with part number specified.

MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R925	1-249-381-11	CARBON	1	5%	1/4W			1-247-863-91		22K	5%	1/4W	
R926	1-249-381-11	CARBON	1	5%	1/4W	P, UK, G, IT) F P, UK, G, IT)	R1220	1-247-811-31 1-249-389-11	CARBON	150 4. 7	5% 5%		F (N300)
R1001	1-249-417-11	CARBON	1K	5%	1/4W	F (N300)		1-249-389-11 1-249-409-11		4. 7 220	5% 5%	1/4W 1/4W	F (N300) F
	1-249-417-11		1K	5%	1/4W	F		1-249-409-11		220	5%	1/4W	
	1-249-437-11		47K	5%	1/4₩	D (N000)	<u>1</u> R1226	1-216-454-11	METAL OXIDE	390	5%	2W	F
	1-249-416-11		820	5%		F (N300)		1-249-425-11		4.7K		1/4W	
	1-249-419-11		1.5K			F (N300K)		1-249-425-11		4.7K		1/4W	F
	1-247-897-11		560K	5%	1/4W		R1235	1-249-435-11	CARBON	33K	5%	1/4₩	
	1-249-437-11		47K	5%	1/4W		R1236	1-249-441-11	CARBON	100K	5%	1/4W	
	1-249-422-11		2.7K		1/4W			1-249-429-11		10K	5%	1/4W	
	1-249-427-11		6.8K		1/4W		R1240	1-249-438-11	CARBON	56K	5%	1/4W	
	1-249-409-11		220	5%	1/4W	F (N300)		1-247-791-91		22	5%	1/4W	
R1011	1-249-429-11	CARBON	10K	5%	1/4W		R1246	1-249-421-11	CARBON	2. 2K	5%	1/4W	F
R1012	1-249-429-11	CARBON	10K	5%	1/4W		R1248	1-249-389-11	CARBON	4. 7	5%	1 / 4 W	F (N300)
R1013	1-249-429-11	CARBON	10K	5%	1/4₩		R1249	1-249-389-11	CARBON	4. 7	5%	1/4W	F (N300)
R1014	1-249-429-11	CARBON	10K	5%	1/4W			1-249-389-11		4. 7	5%	1/4W	
R1021	1-249-422-11	CARBON	2.7K	5%	1/4W	F		1-249-389-11		4. 7	5%		F (N300)
R1022	1-249-427-11	CARBON	6.8K	5%	1/4W			1-249-409-11		220	5%	1/4₩	
R1044	1-249-415-11	CARBON	680	5%	1/4W	F	R1273	1-249-409-11	CAPRON	220	5%	1/4W	P
	1-249-421-11		2. 2K		1/4W			1-249-437-11		47K	5%	1/4W	r
	1-249-441-11		100K		1/4W	•		1-249-421-11		2. 2K			Г
	1-249-417-11		1K	5%		F (N300)		1-249-389-11		2. ZK 4. 7		1/4W	F (N200)
	1-249-417-11		1K	5%	1/4W			1-249-389-11		4. 7	5%	1/4W 1/4W	F (N300) F (N300)
R1053	1-249-437-11	CARBON	47K	5%	1/4W		R1303	1-249-425-11	CAPRON	4. 7K	E 0 ⁄	1/4W	D
	1-249-416-11		820	5%		F (N300)		1-249-425-11		4. 7K		1/4W	
	1-249-419-11		1.5K	5%		F (N300K)		1-249-421-11		2. 2K		1/4W	
	1-247-897-11		560K	5%	1/4W	(1100011)		1-249-393-11		2. ZK 10			
	1-249-437-11		47K	5%	1/4W			1-249-421-11		2. 2K		1/4W 1/4W	
R1057	1-249-422-11	CARBON	2. 7K	5%	1/4W	F	R1322	1-247-791-91	CARBON	22	5%	1/4W	
R1058	1-249-427-11	CARBON	6.8K	5%	1/4W			1-247-791-91		22		1/4W	
R1059	1-249-409-11	CARBON	220	5%	1/4W	F (N300)		1-249-417-11		1K		1/4₩	F
	1-249-422-11		2. 7K	5%		F		1-249-429-11		10K		1/4W	1
R1072	1-249-427-11	CARBON	6.8K		1/4W			1-249-421-11				1/4W	F
R1091	1-249-415-11	CARRON	680	E 0 ⁄	1/4W			1-249-421-11				•	
	1-249-421-11		2. 2K		1/4W					2. 2K		1/4W	F
	1-249-441-11		100K		1/4W	1		1-247-863-91				1/4₩	
	1-249-439-11		68K	5%	1/4W			1-247-863-91		22K		1/4W	
	1-249-441-11		100K		1/4W			1-247-863-91				1/4W	
								1-249-429-11		10K	5%	1/4W	
	1-249-425-11		4. 7K		1/4W	F		1-247-863-91		22K	5%	1/4W	
	1-249-437-11			5%	1/4W			1-247-863-91		22K			(N300K)
	1-247-863-91			5%	1/4W		R1520	1-249-421-11	CARBON	2. 2K		1/4₩	
	1-249-429-11			5%	1/4W		R1521	1-249-425-11	CARBON	4. 7K		1/4W	
R1145	1-247-863-91	CARBON	22K	5%	1/4W		R1522	1-247-863-91	CARBON			1/4W	
R1146	1-247-811-31	CARBON	150	5%	1/4W		R1524	1-249-429-11	CARBON	10K	5%	1/4W	
R1150	1-249-439-11	CARBON	68K	5%	1/4W	l		1-249-429-11				1/4W	
R1181	1-249-441-11	CARBON	100K		1/4W			1-249-429-11				1/4W	
R1191	1-249-425-11		4.7K		1/4W 1	F		1-249-429-11				1/4W	
	1-249-429-11			5%	1/4W	1		1-247-863-91					(N300K)
											J. 10	⇔/ aπ \	()

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Replace only with part number specified.

MAIN MD

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description			Remark
	1-249-431-11 1-249-423-11		15K 3. 3K	5% 5%	1/4W 1/4W	(N300)	RB1	1-239-260-11	ENCAPSULATED CO		/N1200V -	E MV CD)
						(N300:EE)	RB1	1-239-876-11	ENCAPSULATED CO			
R1529	1-249-425-11	CARBON	4. 7K	5%	1/4W	F (N300:CIS)	RB2	1-236-463-11	ENCAPSULATED CO		: AEP, UK	K, EE, CIS)
R1529	1-249-429-11	CARBON	10K (N300	5% : AEP, U	1/4W K, G, IT	/N300K:EA)				(N300	: AEP, UK	K, EE, CIS)
R1529	1-249-431-11	CARBON	15K	5%	1/4W	K:E, MY, SP)			< VARIABLE RESI	STOR >		
D1520	1 247 962 01	CADDON	22K	5%	1/4W		RV1 RV2		RES, ADJ, CARBO			
	1-247-863-91				(N3	00:AEP, UK)	RV701	1-238-600-11	RES, ADJ, CARBO	N 10K		
	1-249-423-11		3. 3K			F (N300K)	RV801	1-238-600-11	RES, ADJ, CARBO	N 10K		
R1530	1-249-429-11	CARBON	10K	5%	1/4W(N300:G, IT)						
R1530	1-249-431-11	CARBON	15K	5%	1/4W	(N300:EE)			< RELAY >			
R1530	1-249-435-11	CARBON	33K	5%	1/4W	(N300:CIS)						
							RY1201	1-515-920-11	RELAY (24V)			
R1531	1-249-429-11	CARBON	10K	5%	1/4W							
R1533	1-249-429-11	CARBON	10K	5%	1/4W				< TRANSFORMER >			
R1541	1-249-429-11	CARBON	10K	5%	1/4W							
R1542	1-249-429-11	CARBON	10K	5%	1/4₩		T1	1-402-424-11	COIL (ANT, SW3)	(N300K:EA)		
R1543	1-249-429-11	CARBON	10K	5%	1/4W		T2		COIL (OSC SW3)			
D1511	1 040 400 11	CARRON	1.017	F.0/	1 / 4797				, mpputuu			
	1-249-429-11		10K	5%	1/4W				< TERMINAL >			
	1-247-807-31		100	5%	1/4W				MDD1171111 D01D	(
	1-247-807-31		100	5%	1/4W		TM1		TERMINAL BOARD			
	1-247-807-31		100	5%	1/4W		TM1		TERMINAL BOARD			
R1555	1-247-807-31	CARBON	100	5%	1/4₩				TERMINAL BOARD TERMINAL BOARD			
	1-247-807-31		100	5%	1/4₩		TM1202	1-537-240-31	TERMINAL BOARD	(SURROUND S	SPEAKER	S)
R1557	1-247-807-31	CARBON	100	5%	1/4W							
R1561	1-247-807-31	CARBON	100	5%	1/4W	(N300K)			< VIBRATOR >			
R1562	1-247-807-31	CARBON	100	5%	1/4W	(N300K)						
R1563	1-247-807-31	CARBON	100	5%	1/4W	(N300K)			VIBRATOR, CERAM		\	
R1564	1-247-807-31	CARRON	100	5%	1/ 4 W	(N300K)			VIBRATOR, CRYST VIBRATOR, CRYST			
	1-249-429-11		10K	5%	1/4W	(1100011)	NIO1	1 100 545 11	TIBRATOR, CRIST	AL (4. 5mil2)	'	
	1-249-437-11		47K	5%	1/4W		******	******	******	*******	*****	*****
	1-247-807-31		100	5%	1/4W		*********		******	*****	*****	****
	1-247-807-31		100	5%	1/4W			A_2007_121_A	MD BOARD, COMPL	CTC		
K1102	1-241-001-31	CARDON	100	J/0	1/4#			N-2001-131-N	*********			
R1704	1-249-425-11	CARBON	4. 7K	5%	1/4₩	F						
	1-247-807-31				1/4₩				< CAPACITOR >			
	1-247-807-31		100	5 %	1/4W							
	1-249-417-11		1K		1/4W	F	C301	1-162-289-31	CERAMIC	390PF	10%	50V
R1708	1-247-807-31	CARBON	100	5%	1/4W		C302	1-124-443-00		100uF	20%	10V
							C303	1-162-282-31			10%	50V
R1710	1-249-429-11	CARBON	10K	5%	1/4W		C304	1-130-483-00	-		5%	50V
	1-249-437-11				1/4₩		C305	1-124-282-00		22uF	20%	16V
	1-249-437-11		47K		1/4W		0000	1 124 202 00	DDDC1	bbut	20%	101
	1-249-421-11		2. 2K		1/4W	F	C311	1-162-289-31	CERAMIC	390PF	10%	50V
	1-249-421-11		470K		1/4\	•	C311	1-162-282-31				50V 50V
R10U4	1-741-099-00	CUUPON	A I UV	JA	1/47			1-102-282-31			10%	
D100r	1_940 416 11	CADDON	920	E 94	1 / # 10	C .					5%	50V
	1-249-416-11		820 .		1/4W	Г		1-124-234-00		22uF	20%	16V
K1806	1-247-895-00	CAKBUN	470K	576	1/4₩		C331	1-136-434-11	riLM	120PF	5%	630V
		< COMPOSITION	N CIRCU	JIT BLO	CK >		C332	1-162-288-31	CERAMIC	330PF	10%	50V
								1-162-209-31			5%	50V
RB1	1-236-777-11	ENCAPSULATED	COMPON	VENT (N	1300K:	EA)		1-162-289-31			10%	50V
						<u> </u>		1-124-443-00			20%	10V
						,			-			

MD MIC

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Descripti	ion				Remark
C403	1-162-282-31	CERAMIC	100PF	10%	50 V	R311 R312	1-247-881-00 1-247-807-31			20K		1/4W	
C404	1-130-483-00	MVI AD	0. 01uF	5%	50V	R314	1-247-882-11				5% 5%	1/4W 1/4W	
C404 C405	1-130-483-00		22uF	20%	16V	R315	1-247-850-11						
			390PF		50V					2K		1/4W	
C411	1-162-289-31			10%		R331	1-249-430-11	CARBON	12	2K	5%	1/4₩	
C413	1-162-282-31		100PF	10%	50V								
C414	1-130-487-00	MYLAR	0. 022uF	5%	50 V	R401	1-247-881-00				5%	1/4W	
						R402	1-249-409-11				5%	1/4W	F
C415	1-124-234-00		22uF	20%	16V	R403	1-249-433-11		22		5%	1/4W	
C431	1-136-434-11		120PF	5%	630V	R404	1-247-889-00	CARBON	27	70K	5%	1/4₩	
C432	1-162-288-31	CERAMIC	330PF	10%	50V	R405	1-247-858-11	CARBON	13	3K .	5%	1/4W	
C433	1-162-209-31	CERAMIC	27PF	5%	50V								
C601	1-126-157-11	ELECT	10uF	20%	16V	R411	1-247-881-00	CARBON	12	20K	5%	1/4W	
						R412	1-247-807-31		10		5%	1/4W	
C602	1-126-157-11	ELECT	10uF	20%	16V	R414	1-247-882-11				5%	1/4W	
C611	1-126-157-11		10uF	20%	16V	R415	1-247-850-11				5%	1/4W	
C612	1-126-157-11		10uF	20%	16V	R431	1-249-430-11				5%	1/4W	
C621	1-136-601-11		0. 01uF	20% 5%	630V	11401	1-245-450-11	CANDON	12	'A	3 <i>7</i> 0	1/4	
						DC01	1 040 400 11	CARRON	0.0		- 0/	1 (470	_
C622	1-124-925-11	ELECI	2. 2uF	20%	100V	R601	1-249-409-11				5%	1/4W	
						R602	1-249-409-11		22		5%	1/4W	
C623	1-136-155-00		0. 015uF	5%	50V	R608	1-249-409-11	CARBON	22	20 !	5%	1/4W	F
C624	1-130-481-00	MYLAR	0.0068uF	5%	50V	R609	1-249-433-11	CARBON	22	2K :	5%	1/4W	
C625	1-130-481-00	MYLAR	0.0068uF	5%	50V	R611	1-249-409-11		22		5%	1/4W	F
C627	1-124-903-11	ELECT	luF	20%	50V						0,0	-,	•
C628	1-136-153-00		0. 01uF	5%	50V	R612	1-249-409-11	CARRON	22	20	5%	1/4W	Б
0020	1 100 100 00	1 11500	o. orur	570	001	ÆR621	1-212-851-00		5.		5%		
CCAS	1-124-477-11	PLECT	47uF	20%	25V	_						1/4W	
C642				2076		<u>1</u> R622	1-212-851-00		5.		5%	1/4W	r
C651	1-164-159-11	CERAMIC	0. 1uF		50V	R623	1-249-432-11		18		5%	1/4W	
						R624	1-249-432-11	CARBON	18	SK :	5%	1/4W	
		< CONNECTOR >											
						R625	1-249-429-11	CARBON	10)K !	5%	1/4W	
* CN601	1-568-864-11	SOCKET, CONNECTO	OR 21P			R651	1-247-856-00	CARBON	11	К :	5%	1/4W	
* CN602	1-564-718-11	PIN, CONNECTOR ((SMALL TYP	E) 2P		R652	1-247-856-00	CARBON	11	К :	5%	1/4W	
* CN651	1-564-521-11	PLUG, CONNECTOR	6P			R653	1-249-441-11			0K 5		1/4W	
		,									0,0	-,	
		< IC >						< VARIABL	F RESISTO	IR >			
								· minimbb	D ILDOTOTO	,,			
10601	8-759-111-44	IC uPC4570C-1				RV301	1-238-598-11	DEC ADI	CARRON 2	21/2			
	8-759-143-54												
							1-238-598-11						
10611	8-759-111-44	IC uPC4570C-1					1-238-551-11						
							1-238-598-11						
		< COIL >				RV411	1-238-598-11	RES, ADJ,	CARBON 2	. 2K			
L331	1-410-780-11	INDUCTOR	27mH			RV441	1-238-551-11	RES, ADJ.	CARBON 2	20K			
L431	1-410-780-11	INDUCTOR	27mH				1-238-599-11						
							1-238-599-11						
		< TRANSISTOR >				111002	1 200 000 11	neo, neo,	CARDON 1	. 111			
		· Humororon /						< TRANSFO	DMED >				
Q621	8-729-142-46	TRANSISTOR 990	2001-LK					· INDIANT	MIDIL /				
•						TC01	1 400 000 11	TRANCPORM	DD DI10	00011		ON	
Q622	8-729-142-46		2001-LK			T621	1-423-980-11	IRANSFORM	ek, bias	05011	LAII	ON	
Q623	8-729-801-93		1387										
Q651	8-729-900-65	TRANSISTOR DTA	144ES			******	*********	******	******	****	****	******	*****
		< RESISTOR >				*	1-654-620-11	MIC BOARD	(N300K)				
								*******	******				
R301	1-247-881-00	CARBON	120K 5%	1/4W	İ								
R302	1-249-409-11		220 5%	1/4₩	_F			< CAPACIT	OR >				
R303	1-249-433-11		22K 5%	1/4W	٠			· on norr	··· /				
R304	1-247-889-00		270K 5%	1/4W	Į	C1627	1 104 005 11	DI DOT	0 015	0.0	10/	1007	
					ł		1-124-925-11		2. 2uF	20		1007	
R305	1-247-858-11	CANDON	13K 5%	1/4₩	1	C1038	1-162-294-31	CERAMIC	0. 001uF	10	176	50 V	
								ſ	The comp	onont	e ida	atified by	monle

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.

Replace only with part number specified.

MIC OPEN/CLOSE PANEL

Ref. No.	Part No.	Description	<u>i</u>			Remark	Ref. No.	Part No.	Description			Remark
C1640	1-162-215-31 1-162-294-31	CERAMIC	47PF 0. 001uF	5% 10%	50V 50V		*	A-4377-127-A	PANEL BOARD, COI	•	,	
	1-126-803-11 1-126-803-11		47uF 47uF	20% 20%	10V 10V		*	A-4377-144-A	PANEL BOARD, CO	,	,	
C1651 C1652	1-124-925-11 1-162-294-31 1-162-215-31	CERAMIC CERAMIC	2. 2uF 0. 001uF 47PF	20% 10% 5%	100V 50V 50V		*	A-4377-603-A	PANEL BOARD, CO		•	
C1653	1-162-294-31	CERAMIC < CONNECTO	0.001uF R >	10%	50V		*		CUSHION (FL) HOLDER, FL TUBE			
* CN1601	1-568-954-11	PIN. CONNE	CTOR 5P						< CAPACITOR >			
# CN1001	1 000 004 11		C1011 01				CEOO	1 160 206 11		0.010	200	167
		< IC >					C500 C501	1-162-306-11 1-162-306-11		0. 01uF 0. 01uF	20% 20%	16V 16V
IC1603	8-759-634-51	IC M5218	AP				C502	1-126-157-11		10uF	20%	16V
		< JACK >					C503 C504	1-124-257-00 1-162-303-11		2. 2uF 0. 0033uF	20% 20%	50V 16V
		()non /					0001					101
	1-569-113-11	•					C505	1-162-303-11		0. 0033uF	20%	16V
J1602	1-573-151-11	JACK, LARG	E TYPE (M)	(C 2)			C506 C507	1-126-157-11 1-124-257-00		10uF 2. 2uF	20% 20%	16V 50V
		< TRANSIST	OD \				C507	1-162-294-31		2. 2ur 0. 001uF	20% 10%	50V 50V
		< TRANSISI	ON /				C508	1-162-294-31		0. 001uF	10%	50V
R1638	1-249-429-11	CARBON	10K 5	5%	1/4₩		0000	1 102 204 01	CERTAINTC	o. oorar	10/0	501
	1-249-417-11				1/4₩ F		C510	1-162-306-11	CERAMIC	0. 01uF	20%	16V
R1640	1-249-441-11	CARBON		5%	1/4W		C511	1-124-257-00	ELECT	2. 2uF	20%	50 V
R1641	1-249-417-11	CARBON	1K 5	5%	1/4W F		C512	1-162-290-31	CERAMIC	470PF	10%	50V
R1642	1-247-863-91	CARBON	22K 5	5%	1/4₩		C513	1-162-290-31	CERAMIC	470PF	10%	50V
							C514	1-162-306-11	CERAMIC	0.01uF	20%	16V
	1-249-429-11			5% -~	1/4W E		CETE	1 104 957 00	DI DOT	0.05	200	LOA
	1-249-417-11 1-249-441-11			5% 5%	1/4W F 1/4W		C515 C601	1-124-257-00 1-124-589-11		2. 2uF 47uF	20% 20%	50V 16V
	1-249-441-11				1/4W F		C602	1-162-282-31		100PF	10%	50V
	1-247-863-91			5%	1/4W		C604	1-162-306-11		0. 01uF	20%	16V
	1 21. 000 00				_,		C605	1-162-306-11	CERAMIC	0. 01uF	20%	16V
R1655	1-249-429-11	CARBON		5%	-,							
R1657	1-249-429-11	CARBON	10K 5	5%	1/4W		C606	1-126-177-11		100uF	20%	10V
							C607	1-162-306-11		0.01uF	20%	16V
******	*********	********	********	*****	*******	******	C609 C661	1-126-157-11 1-162-284-31		10uF 150PF	20%	16V 50V
	1-654-648-11	ODEN (CLOSE	DUYDD					1-162-284-31			10%	
*	1-054 046 11	******					C662	1 102 204 51	CLIAMIC	150PF	10%	50V
							C663	1-162-284-31	CERAMIC	150PF	10%	50V
		< JACK >					C664	1-162-284-31		150PF	10%	50V
							C665	1-162-284-31		150PF	10%	50V
J1201	1-569-113-11	JACK, LARG	E TYPE (HE	EADPHO	ONES)		C666	1-162-284-31		150PF	10%	50V
		/ CWITCH \					C671	1-164-159-11	CERAMIC	0. 1uF		50V
		< SWITCH >					C672	1-164-159-11	CERAMIC	0. 1uF		50V
S637	1-554-303-21	SWITCH TA	CTILE (\triangle	OPEN/	(CLOSE)		C675	1-104-133-11		10uF	20%	50V 50V
2001	- 000 000	,			,							
******	********	*******	*******	****	******	******			< CONNECTOR >			
							* CN601	1-568-834-11	SOCKET, CONNECTO	OR 15P		
									< DIODE >			
							D503	8-719-987-63	DIODE 1N4148M			

PANEL

Ref. No.	Part No.	Description	<u>1</u>	Remark	Ref. No.	Part No.	Description					Remark
D507 D511	8-719-987-63 8-719-987-63		4148M 4148M		Q616	8-729-119-76	TRANSISTOR	2SA11	75-HFE			
D515 D530	8-719-987-63 8-719-987-63	DIODE 1N	4148M 4148M				< RESISTOR >					
2000	0 713 301 03	DIODE IN	11100		R500	1-249-435-11	CARBON	33K	5%	1/4W		
D531	8-719-987-63		4148M		R501	1-249-441-11	CARBON	100K		1/4W		
D532	8-719-987-63		4148M		R502	1-247-895-00		470K	5%	1/4₩		
D533	8-719-987-63		4148M		R504	1-249-435-11		33K	5%	1/4₩		
D600 D617	8-719-987-63 8-719-046-46		4148M		R505	1-249-441-11	CARBON	100K	5%	1/4W		
ווטע	0-119-040-40	DIONE SE	L5221S-TH8F		R506	1-247-895-00	CADDON	470V	Γ0/	1 / 4 97		
D618	8-719-046-46	DIODE SEI	L5221S-TH8F		R508	1-247-695-00		470K 33K	5% 5%	1/4W 1/4W		
D619	8-719-046-46		L5221S-TH8F		R509	1-249-441-11		100K		1/4W		
D620	8-719-046-46		L5221S-TH8F		R510	1-247-895-00		470K		1/4W		
D621	8-719-046-46	DIODE SEI	L5221S-TH8F		R512	1-249-435-11		33K	5%	1/4W		
D622	8-719-046-46	DIODE SEI	L5221S-TH8F							-,		
D000	0 510 010 05	DIADE OF	50011 Buon		R513	1-249-441-11		100K		1/4W		
D623 D624	8-719-046-35 8-719-046-42		L5921A-TH8F		R514	1-247-895-00		470K		1/4W		
D624 D625	8-719-046-42		L5421E-TH8F L5421E-TH8F		R516 R517	1-249-437-11		47K	5%	1/4W		
D626	8-719-046-42		L5421E-TH8F (N300)		R517	1-249-437-11 1-249-437-11		47K 47K	5% 5%	1/4W 1/4W		
D626	8-719-052-22		L58420C-TP (N300K)		11010	1 243 457 11	CARDON	4111	3/0	1/417		
			(,		R519	1-249-437-11	CARBON	47K	5%	1/4W		
D627	8-719-046-42	DIODE SEI	L5421E-TH8F (N300)		R553	1-249-408-11		180		1/4W	F	
D627	8-719-052-22		L58420C-TP (N300K)		R556	1-249-437-11	CARBON	47K	5%	1/4W		(N300K)
D628	8-719-046-46		.5221S-TH8F (N300K)		R609	1-249-429-11		10K		1/4₩		
D629	8-719-010-12		-2. 7BS	İ	R610	1-249-429-11	CARBON	10K	5%	1/4₩		
D630	8-719-010-12	DIODE OZ-	-2. 7BS		DC11	1 040 410 11	CARRON		-0/			
D634	8-719-024-99	DIODE 11E	ES2-NTA2B (N300K:MY)		R611 R612	1-249-419-11 1-247-811-31		1.5K		1/4W	F	
D634	8-719-200-82		ES2 (N300/N300K:E, EA, SP)	,	R613	1-247-611-31		150 270		1/4W 1/4W	TC.	
D651	8-719-987-63		1148M	´	R614	1-249-408-11		180		1/4W		
D652	8-719-046-46	DIODE SEL	.5221S-TH8F		R615	1-249-409-11		220		1/4W		
		< FLUORESCE	ENT INDICATOR >		R616	1-249-411-11	CARBON	330	5%	1/4W		
					R617	1-249-413-11		470		1/4W	F	
FL601	1~517-341-11	INDICATOR T	UBE, FLUORESCENT	Ī	R618	1-249-414-11		560		1/4W		
					R619	1-249-416-11		820	5%	1/4W		
		< IC >		-	R620	1-249-418-11	CARBON	1. 2K	5%	1/4₩	F	
IC501	8-759-634-51	IC M5218A	Р		R621	1-249-420-11	CARRON	1. 8K	592	1/4W	E.	
	8-759-634-51			I	R622	1-249-423-11		3. 3K		1/4W		
IC602	8-749-922-36	IC GP1U50	XB	İ		1-249-427-11		6. 8K		1/4₩		
	8-752-862-43		12-006Q	l	R624	1-249-419-11		1.5K		1/4W		
IC608	8-752-866-01	IC CXP826	12-009Q	İ	R625	1-247-811-31	CARBON	150	5%	1/4W		
		< COIL >			R626	1-249-410-11	CARRON	270	5%	1/4W	E.	
					R627	1-249-408-11				1/4W		
L601	1-410-509-11	INDUCTOR	10uH			1-249-409-11				1/4W		
					R629	1-249-411-11	CARBON			1/4W	_	
		< TRANSISTO	R >	ĺ	R630	1-249-413-11	CARBON	470	5%	1/4W	F	
Q601	8-729-422-57	TRANSISTOR	UN4111		R631	1-249-414-11	CARRON	560	5%	1/4W	r.	
	8-729-422-57		UN4111			1-249-416-11				1/4W		
-	8-729-900-63		DTA124ES	j		1-249-418-11		1. 2K		1/4W		
•	8-729-119-78		2SC2785-HFE (N300K)	l		1-249-420-11		1. 8K		1/4W		
Q610	8-729-900-63	TRANSISTOR	DTA124ES (N300K)		R635	1-249-423-11		3. 3K		1/4W		
Q611	8-729-119-76	TRANCI CTOP	2SA1175-HFE (N300K)		Dese	1_940, 497 11 4	^ADDON 4	2 017	Γ 0 /	1 / 4	Г	
-	8-729-900-80		DTC114ES (N300K)	1		1-249-427-11 (1-249-419-11 (5.8K 1.5K		1/4W		
4010	J 120 000 00		DICITION (HOUR)	ļ	11001	1 449 413-11 (ONINDON .	ı, ən	J76 .	1/4W	r	

PANEL

Ref. No.	Part No.	Description					Remark	Ref. No.	Part No.	Descrip	tion		Remark
R650	1-249-419-11	CARBON	1. 5K	5%	1/4W	F				< SWITC	H >		
R651	1-247-811-31		150	5%	1/4W					. 5,110	,		
R652	1-249-410-11		270	5%	1/4W			S603	1-554-303-21	SWITCH.	TACTILE	(\Lambda)	
	1 2.0 .10 11	C.I.I.DOI.	2.0	0.4	-,	•		S604	1-554-303-21				
R653	1-249-408-11	CARRON	180	5%	1/4W	F		S605	1-554-303-21				
R654	1-249-409-11		220	5%	1/4W			S606	1-554-303-21				
R655	1-249-411-11		330	5%	1/4₩			S607					
R656	1-249-413-11		470	5%	1/4W			3007	1-554-303-21	Switten,	IACITLE	(FUNCTION)	
R657				5%	1/4W			ceno	1 554 202 01	CWITCH	TACTILE	(OO)	
1607	1-249-414-11	CARDON	560	37 6	1/47	Г		S608	1-554-303-21				
DCCO	1 040 410 11	CADDON	000	F0/	1 / 4 177	-		S609	1-554-303-21				
R658	1-249-416-11		820	5%	1/4₩			S610	1-554-303-21				
R659	1-249-418-11		1. 2K		1/4W		(S611	1-554-303-21				
R660	1-249-420-11		1.8K				(N300K)	S612	1-554-303-21	SWITCH,	TACTILE	(\triangleleft)	
R661	1-249-423-11		3. 3K				(N300K)						
R662	1-249-427-11	CARBON	6.8K	5%	1/4W	F ((N300K)	S613	1-554-303-21	SWITCH,	TACTILE	(>)	
								S614	1-554-303-21	SWITCH,	TACTILE	(HIGH SPEED DUBBI	NG)
R663	1-247-903-00	CARBON	1M	5%	1/4W			S615	1-554-303-21	SWITCH,	TACTILE	(CD SYNCRO)	
R664	1-249-415-11	CARBON	680	5%	1/4W	F		S616	1-554-303-21	SWITCH,	TACTILE	(◀)	
R665	1-249-415-11	CARBON	680	5%	1/4W	F		S617	1-554-303-21				
R666	1-249-415-11	CARBON	680	5%	1/4W	F							
R667	1-249-415-11	CARBON	680	5%	1/4W	F		S618	1-554-303-21	SWITCH.	TACTILE	(TUNER/BAND)	
								S619	1-554-303-21				
R668	1-249-415-11	CARBON	680	5%	1/4W	F		S620	1-554-303-21				
R669	1-249-415-11		680	5%	1/4W			S621		-		(TUNING MODE)	
R682	1-249-408-11		180	5%	1/4W		-	S622				(TUNING MEMORY)	
R683	1-249-412-11		390	5%	1/4\			3022	1 334 303-21	Switch,	IACITLE	(TUNING MEMORI)	
R684	1-249-410-11		270	5%	1/4W			S623	1554_202_21	CWITCU	TACTILE	(DICDLAV)	
11004	1 243 410 11	CARDON	210	3/0	1/40	ľ			1-554-303-21				
DCOE	1 240 410 13	CADDON	270	E OV	1 / 4 90	TC.		S624	1-554-303-21				
R685	1-249-410-11		270	5 %	1/4₩			S625	1-554-303-21				
R686	1-249-410-11		270	5%	1/4W		2100011	S626	1-554-303-21				
R687	1-249-429-11		10K	5%	1/4W		N300K)	S627	1-554-303-21	SWITCH,	TACTILE	(DAILY)	
R688	1-249-410-11		270	5%				2000					
R689	1-249-410-11	CARBON	270	5%	1/4W	F (N300K)	S628	1-554-303-21				
B400		0.0000		==:		_		S642				(SYSTEM POWER)	
R690	1-249-410-11		270	5%	1/4W			S643	1-554-303-21			, ,	
R691	1-249-410-11			5%			N300K)	S644	1-554-303-21				
R692	1-249-413-11		470	5%		F (N300K)	S645	1-554-303-21	SWITCH,	TACTILE	(POPS/2)	
R693	1-249-429-11		10K	5%	1/4₩								
R695	1-249-421-11	CARBON	2. 2K	5%	1/4W	F		S646	1-554-303-21	SWITCH,	TACTILE	(JAZZ/3)	
							j	S647	1-554-303-21	SWITCH,	TACTILE	(CLASSIC/4)	
R696	1-247-807-31	CARBON	100	5%	1/4W		İ	S648	1-554-303-21	SWITCH,	TACTILE	(DANCE/5)	
R697	1-247-807-31		100	5%	1/4W		l	S649	1-554-303-21				
R703	1-249-429-11	CARBON	10K	5%	1/4W		İ	S650	1-554-303-21			1 1	
R704	1-249-429-11		10K	5%	1/4W		l			- *		•	
R710	1-249-429-11	CARBON	10K	5%	1/4W		}	S651	1-554-303-21	SWITCH.	TACTILE	(● REC)	
							ļ	S652		-		(# UP) (N300K)	
R711	1-249-429-11	CARBON	10K	5%	1/4W		J	S653				(b DOWN) (N300K)	
R712	1-249-429-11			5%	1/4W	(N30	0)	S654				(KARAOKE PON/MIX)	(N300K)
R713	1-249-429-11		10K	5%	1/4W			545.	- 00. 000 21	01111011,	INCTIBE	(MINIONE FOR MINI)	(1100011)
R773	1-249-429-11		10K	5%	1/4W	(·′			< VIBRAT	MR >		
R774	1-249-429-11		10K	5%	1/4W					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	OK >		
1117	1 510 750 11	C.M.DOIT	1011	JA	1/75			X601	1-567-819-11	VIRPATO	CEDANT	C (AMHa)	
R778	1-249-429-11	CARRON	10K	5%	1/4W		l	A001	1 301 813 11	TIDIMIO	, CERAMI	C (4M112)	
R779	1-249-429-11			5%	1/4W			+++++++	******			*********	is alle alle alle alle alle alle
11119	1 440 11	CARDON	101/	J /0	1/47			~~ ~~	TT****	·ተቀቀቀችች ³	*****	*****	*****
		< VARIABLE RE	ESISTOF	? >									
DVC01	1-467-869-11	בארטובם סטדי	NDV (VC	JI LIME /			1						
1001	1-401-009-11	ENCODER, RUI	1/1 (YC)LUME)									

POLAR POWER

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description				Remark
*	A-4377-602-A	POLAR BOARD, CO	-			Q1704	8-729-900-80	TRANSISTOR	DTC114ES	;		
		< CAPACITOR >						< RESISTOR >				
		· om nor on				R1701	1-247-863-91	CARBON	22K	5%	1/4W	
C1701	1-162-294-31	CERAMIC	0. 001uF	10%	50V	R1702	1-249-435-11	CARBON	33K	5%	1/4W	
	1-130-014-00		470PF	5%	50V		1-249-427-11		6.8K	5%	1/4₩	F
	1-124-902-00		0. 47uF	20%	50V		1-247-858-11		13K	5%	1/4W	
	1-124-902-00		0. 47uF	20%	50 V	R1705	1-249-417-11	CARBON	1K	5%	1/4W	F
C1705	1-164-098-11	CERAMIC	0. 047uF		12V							
01500	1 104 000 11	DI DOM		000			1-249-417-11		1K	5%	1/4W	F
	1-124-903-11		luF	20%	50V		1-249-441-11		100K		1/4W	
	1-162-288-31		330PF	10%	50V		1-249-440-11		82K	5%	1/4₩	
	1-130-471-00 1-130-471-00		0. 001uF 0. 001uF	5%	50V 50V		1-249-437-11		47K	5%	1/4W	
	1-130-471-00		0.001ur 0.01uF	5% 5%	50V 50V	KIIIU	1-249-429-11	CARBON	10K	5%	1/4₩	
(1112	1 130 130 11	LILM	0.0141	J/0	301	P1711	1-249-429-11	CADDON	107	Γ0 /	1 / ATT	
C1713	1-130-736-11	FILM	0. 01uF	5%	50V		1-249-426-11		10K 5.6K	5%	1/4W	
	1-124-903-11		luF	20%	50V		1-249-426-11		5. 6K		1/4W	
	1-124-903-11		luF	20%	50V	R1716	1-249-441-11	CARRON	3. ok 100K		1/4W 1/4W	
	1-124-903-11		luF	20%	50V	R1717	1-249-441-11	CARRON	100K		1/4W	
	1-124-477-11		47uF	20%	25V		1 210 111 11	CHILDON	1001	J /0	1/41	
						R1718	1-249-429-11	CARBON	10K	5%	1/4W	
C1720	1-162-306-11	CERAMIC	0. 01uF	30%	16V		1-249-429-11		10K	5%	1/4W	
C1723	1-162-306-11	CERAMIC	0. 01uF		16V		1-249-434-11		27K	5%	1/4W	
C1724	1-162-306-11	CERAMIC	0. 01uF	30%	16V		1-249-441-11		100K		1/4W	
C1725	1-124-477-11	ELECT	47uF	20%	25V					• • • • • • • • • • • • • • • • • • • •	-/	
C1726	1-124-903-11	ELECT	luF	20%	50V			< VARIABLE RE	SISTOR >			
	1-124-903-11		luF	20%	50V			RES, ADJ, CAR				
C1728	1-104-792-51	ELECT	33uF	20%	16V	RV1702	1-238-599-11	RES, ADJ, CAR	BON 4.7K			
		< CONNECTOR >						< TEST PIN >				
CN1701	1-750-418-11	CONNECTOR, FFC/	FPC 13P					PIN, CONNECTOR				
						* TP1702	1-560-061-00	PIN, CONNECTOR	R 3P			
		< TRIMMER >										
CT1701	1-141-260-00	CAD TOTMMED	50PF			******	*********	**********	*******	****	*****	*****
CITIOI	1-141-200-00	CAI, INTERNET	3011		ĺ	*	1 654 654 11	DOWER DOADS				
		< DIODE >				•	1-654-654-11	*********				
		(DIODE /			l			*******				
D1701	8-719-987-63	DIODE 1N4148M					1-533-217-31	HUI DEB EIICE				
	8-719-987-63							TERMINAL (WITH	(RASE)			
D1704	8-719-987-63	DIODE 1N4148M						TEILINITINE (WITH	i bilob)			
D1705	8-719-987-63	DIODE 1N4148M			ľ			< FUSE >				
		< IC >				 F1901	1-532-350-00	FUSE, TIME LAG	(T4AL)			
701701	0.000.04	7.0 7.00.40			İ	<u>1</u> F1902	1-532-350-00	FUSE, TIME LAG	(T4AL)			
	8-759-063-04	-										
101703	8-759-140-53	IC uPD4053BC			i			< RESISTOR >				
		< COIL >				№ D1001	1 917 697 00	DUCIDID 1	E6/	1 / / ***	В	
		· COIL /				_	1-217-637-00 1-219-121-81		5% 22 5%	1/4W		
L1701	1-409-497-11	COIL (FILTER)				-	1-219-121-81		22 5% 22 5%			
					i		_ 510 151 01	LOGIDED U.	<i>uu</i>	1/47	r.	
		< TRANSISTOR >				******	*********	********	******	*****	******	****
					- 1					- '		
	8-729-422-57											
Q1702	8-729-900-80	TRANSISTOR DTC	114ES		1							

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

POWER AMP POWER PRIMARY

Ref. No.	Part No.	<u>Description</u> <u>Rema</u>	k Ref. No.	Part No.	Description			<u> </u>	Remark
*	A-4377-137-A	POWER AMP BOARD, COMPLETE			< RESISTOR >				
		(N300: AEP, UK, G, I		1-249-417-11			1/4W	F	
at.	A 4277 COC A	POWER AMP BOARD, COMPLETE(N300:EE, CIS)		1-249-437-11 1-249-415-11			1/4W 1/4W	D.	
*	A-4311-000-A	*****************	1	1-249-415-11			1/4W	r	
			1	1-249-425-11		4.7K 5%		F	
*	A-4377-147-A	POWER AMP BOARD, COMPLETE(N300K)	D1000	1 040 405 11	CADDON	4 717 FW	1 / 4 m	r	
		*********	I .	1-249-425-11 1-249-425-11		1.7K 5% 1.7K 5%			
			I	1-249-425-11		4.7K 5%			
			I —	1-212-881-11			1/4W		
		(CARACITOR)		1-208-602-11	. WIREWOUND C	0. 22 109	6 2W	F	
		< CAPACITOR >	R1211	1-249-417-11	CARRON 1	IK 5%	1/4W	F	
C1201	1-124-927-11	ELECT 4.7uF 20% 100V		1-249-431-11			1/4W	•	
	1-162-288-31		I .	1-249-441-11		100K 5%			
C1203	1-162-286-21		l l	1-249-421-11		2. 2K 5%			
C1204	1-126-803-11		R1215	1-249-421-11	CARBON 2	2. 2K 5%	1/4W	F	
C1205	1-124-910-11	ELECT 47uF 20% 50V	D1010	1 940 401 11	CADDON) OV EN	1 / 4107	r.	
C1206	1-124-122-11	ELECT 100uF 20% 50V	ı	1-249-421-11 1-249-421-11		2.2K 5% 2.2K 5%			
C1208	1-124-916-11		E .	1-247-791-91			1/4W	r	
C1210	1-137-375-11			1-247-791-91			1/4W		
C1211	1-137-375-11			1-247-881-00		120K 5%	1/4W		
C1220	1-126-925-11	ELECT 470uF 20% 10V							
01.051	1 104 007 11	ELECT 4.7E 200 1000	,	1-249-429-11			1/4W		
	1-124-927-11 1-162-288-31			1-249-429-11 1-249-383-11			1/4W 1/6W	E C	
C1252	1-162-286-21		I I	1-249-383-11			1/4W		
C1254	1-126-803-11		1	1-249-437-11			1/4W	•	
	1-124-910-11								
		4	i	1-249-415-11			1/4W	F	
C1256	1-124-122-11		1	1-249-437-11			1/4W	Б	
	1-137-375-11 1-137-375-11		I .	1-249-425-11 1-249-425-11		4.7K 5% 4.7K 5%			
C1201	1-151 515 11	11Lm 0.000dr 3/0 301	1	1-249-425-11		4.7K 5%			
		< CONNECTOR >		1 0 10 120 13			-/ -"	-	
			I .	1-249-425-11		4.7K 5%			
		PLUG, CONNECTOR 3P		1-212-881-11			1/4W		
CN1204	4 1-564-511-11	PLUG, CONNECTOR 8P		1-208-602-11 1-249-417-11		0.22 109 1K 5%	6 2W 1/4W	F	
		< DIODE >		1-249-417-11			1/4W	Г	
		(B100B)	111202	1 210 101 11	CARDON	1011 070	1/ 111		
	8-719-987-63			1-249-441-11		100K 5%			
	8-719-987-63			1-247-791-91			1/4W		
D1251	8-719-987-63	DIODE 1N4148M	R1269	1-247-791-91	. CARBON 2	22 5%	1/4W		
		< IC >	*****	********	*******	******	*****	******	*****
	1 8-749-900-96 1 8-749-920-09		*	1-654-694-11	POWER PRIMARY				
		< TRANSISTOR >			< CONNECTOR >	>			
•		TRANSISTOR 2SC1841-PAFAEA TRANSISTOR 2SC1841-PAFAEA	* CN195	1 1-580-230-31	PIN, CONNECTO	OR (PC BC		P /N300K:	EA, SP)
			*****	******	******	*** ****	*****	******	*****
									• •

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.

Replace only with part number specified.

REGULATOR TC PANEL

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description	Remark
*	1-654-656-11	REGULATOR BO				1		MISCELLANEOUS ************	
C1351	1-124-443-00	< CAPACITOR	> 100uF 209	% 10V		<u>^</u> 4 <u>^</u> 5 <u>^</u> 6	1-569-007-11 1-558-943-51 1-575-651-21	ADAPTER, CONVERSION 2P (N300K:E) CORD, POWER (N300K:E)	
C1352 C1356	1-124-907-11 1-124-907-11 1-124-443-00	ELECT :	10uF 209 10uF 209 100uF 209	\$ 50V \$ 50V		<u>↑</u> 7 <u>↑</u> 8	1-569-008-11	ADAPTER, CONVERSION 2P (N300K:EA, CORD, POWER (N300:UK)	MY, SP)
		< IC >				12 12 57	1-690-590-31	WIRE, FLAT TYPE (15 CORE) (N300K) WIRE (FLAT TYPE) (13 CORE) (N300:CI WIRE (FLAT TYPE) (19 CORE)	S)
	8-759-334-30					58 59	1-751-590-11	WIRE (FLAT TYPE) (21 CORE) WIRE, FLAT TYPE (11 CORE)	
*****	*********	*******	********	******	*****	C O	1 500 017 01	HOLDED DIOD	
*	1-654-650-11	TC PANEL BOA				63 129 <u>1</u> 351 352	1-575-906-31 8-848-387-01	HOLDER, FUSE WIRE, FLAT TYPE (15 CORE) OPTICAL PICK-UP BLOCK (KSS-213BA/WIRE (FLAT TYPE) (16 CORE)	S-N)
		< DIODE >						FUSE, TIME LAG (T4AL)	
D611 D612 D613 D613 D614	8-719-046-46 8-719-046-46 8-719-046-42 8-719-052-22 8-719-046-42	DIODE SELS DIODE SELS DIODE SELS	5221S-TH8F (5221S-TH8F (5421E-TH8F (58420C-TP (5421E-TH8F ((DECK A) (TAPE) (N300 TAPE) (N300K)	HP101	1-500-093-11 11-500-094-11 X-3369-110-1	FUSE, TIME LAG (T4AL) HEAD, MAGNETIC (PLAYBACK) HEAD, MAGNETIC (REC/PB/ERASE) MOTOR ASSY (CAPSTAN) MOTOR ASSY (TRIGGER)	
D614	8-719-052-22	DIODE SELS	8420C-TP (1	CAPE) (N300K)	M102 M151	X-4917-504-1 A-4604-363-A	MOTOR ASSY (SPINDLE) MOTOR ASSY (SLED) MOTOR (L) ASSY (LOADING)	4. (27)
Q603 Q604 Q615	8-729-900-63 8-729-119-78 8-729-119-76	TRANSISTOR	DTA124ES 2SC2785-HF 2SA1175-HF			<u></u> ↑T901	1-427-706-11	SWITCH, VOLTAGE CHANGE (N300K:E, E TRANSFORMER, POWER (N300K:E, EA, SP	A, SP))
Ø013	0 123 113 10	TRANSISTOR	25ATTTJ-III	ъ		∆ T901	1-421-101-11	TRANSFORMER, POWER (N300)	
		< RESISTOR >				******	**********	************	*****
R638 R639	1-247-811-31 1-249-410-11	CARBON	150 5% 270 5%	1/4W 1/4W F				S & PACKING MATERIALS	
R640 R641	1-249-408-11 1-249-409-11		180 5% 220 5%	1/4W F 1/4W F			1 467 060 11	COMMANDED CTANDADD (DM COOM)	
R670	1-249-409-11	CARBON	220 5%	1/4W F			1-501-374-11 1-501-594-31	COMMANDER, STANDARD (RM-S300L) ANTENNA, LOOP (N300:AEP, G, IT, EE, C ANTENNA (FM) (N300:AEP, IT, EE, CIS)	IS)
R671 R672	1-249-409-11 1-249-429-11		220 5% 10K 5%	1/4W F 1/4W	(N300K)		3-798-238-31	MANUAL, INSTRUCTION	DE CLO)
R673	1-249-410-11		270 5%	1/4W F	(NOUGH)		3-798-238-41	(ENGLISH, POLISH, GERMAN) (N300:1 MANUAL, INSTRUCTION	EE, CIS)
R674	1-249-410-11		270 5%	1/4W F	(N300K)			MANUAL, THSTRUCTION ISH, FRENCH, SPANISH, PORTUGUESE) (N38)() (AED)
R675	1-249-410-11		270 5%	1/4W F	((DITOL	ron, radicin, or haron, rolatioodod, (Not	JU. AEI)
R676	1-249-410-11	CARBON	270 5%	1/4W F	(N300K)			MANUAL, INSTRUCTION (GERMAN, DUTCH, ITALIAN) (N300: MANUAL, INSTRUCTION	AEP, IT)
		< SWITCH >					3-798-238-71	(DANNISH, FINISH, SWEDISH) (N30 MANUAL, INSTRUCTION (GERMAN) (N300	:G)
S629	1-554-303-21	•		Dr. Dow.				COVER (MLY), BATTERY (for RM-S300I	ر_)
S630	1-554-303-21				.	*	4-971-010-01	CUSHION	
S631	1-554-303-21	•		,	'		4 071 000 01	TAID THE DATE OF THE PARTY OF T	
S632 S633	1-554-303-21 1-554-303-21							INDIVIDUAL CARTON (N300:AEP, G, IT) INDIVIDUAL CARTON (N300:EE, CIS)	
******	*********	******	*******	********	*****	******	******	**************	*****

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.

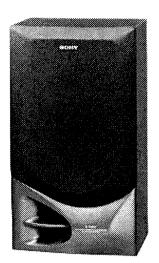
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark

#1 #2 #3 #3	7-685-534-19 7-682-548-04	SCREW +BVTP 3X8 TYPE2 N-S SCREW +BTP 2.6X8 TYPE2 N-S SCREW +BVTT 3X8 (S) (N300:UK) SCREW +BVTT 3X6 (S) (N300:AEP, G, IT, EE,	CIS/N300K)
#4	7-621-849-00	SCREW, TAPPING	C13/ N300N/
#5 #6 #7 #8 #9	7-685-650-79 7-685-533-19 7-621-775-10	SCREW +BVTT 4X6 (S) SCREW +BVTP 3X16 TYPE2 IT-3 SCREW +BTP 2.6X6 TYPE2 N-S SCREW +B 2.6X4 SCREW +B 2.6X3	
#10 #11 #12 #13	7-621-770-67 7-621-255-15	• •	

SS-LB300

SERVICE MANUAL



E Model Australian Model PX Model

This set is the speaker system in LBT-N300K/N350/N350K/N350P.

Photo: L-CH

SPECIFICATIONS

Speaker system

3-way system

Speaker unit

Woofer: 220 mm cone type Tweeter: 65 mm cone type

Super tweeter: 20 mm dome type

Frequency range

50 Hz - 20,000Hz

Dimensions 270×476×235 mm

(10 3/4×18 3/4×9 3/8 inches) (w/h/d)

Mass

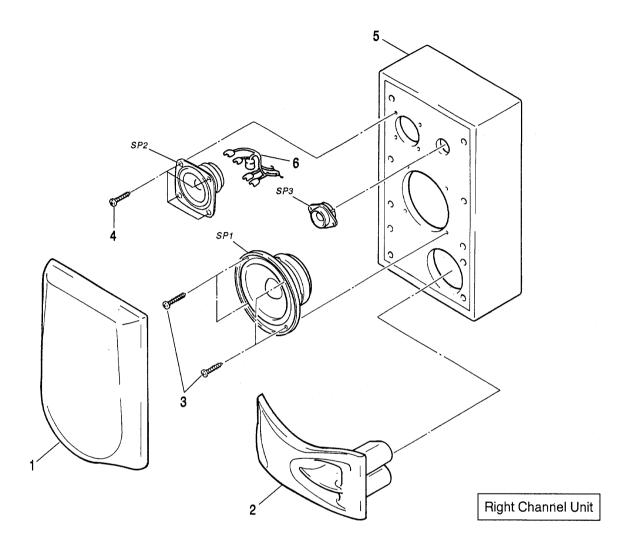
Approx. 5.4 kg

Design and specifications subject to change without notice.



EXPLODED VIEW AND PARTS LIST

- Items marked "* "are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 The mechanical parts with no reference number in the exploded views are not supplied.



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	. <u> </u>	Remark
1		FRAME (L) ASSY, GRILLE FRAME (R) ASSY, GRILLE		SP1 SP2	1-504-751-11		/	
2 2	4-971-202-01	DUCT (R) ORNAMENTAL DUCT (R) ORNAMENTAL		SP3	1-504-872-11 1-544-453-21 ******	SPEAKER (2cm	,	*****
3		SCREW +BTP 4×20				PACKING MATE	ERIALS	
4 * 5	A-4361-272-A	SCREW (M3.5 \times 16) CABINET (L) ASSY, SPEAKER				*******	*****	
* 5 6		CABINET (R) ASSY, SPEAKER CORD, SPEAKER (WITH CONNECTOR)		*	4-972-653-01	CUSHION		

PS-LX56/LX56P

SERVICE MANUAL

Ver 1.1 2001, 07

PS-LX56/LX56P are the turntable section in LBT-A190/A195/A290/A290K/ A295/A390/A390K/A395/ A490/A490K/A495/D150/ D250/D550/G1000/G2000.

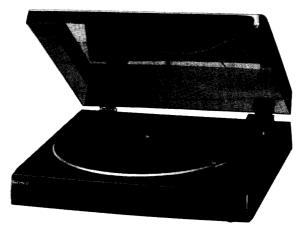


PHOTO: PS-LX56

US Model Canadian Model PX Model Tourist Model PS-LX56 AEP Model E Model

Australian Model

UK Model PS-LX56P

PS-LX56/LX56P

SPECIFICATIONS

Turntable Platter

Motor Drive system Speed Wow and flutter Signal-to-noise ratio

Automatic system

Pivot-to-stylus length Overall arm length

Cartridge

Туре Frequency response Stylus

General

Dimensions

Weight

Power requirement

Power consumption Accessory supplied Optional accessories (PS-LX56)

30cm (12 in.) DC servo motor Belt drive 33 1/3 rpm/45 rpm switchable 0.2% (WRMS) 60 dB (DIN-B) Return, reject

Dynamically blanced 203 mm (8 in.) 235 mm (9 1/4 in.)

Moving magnet type 20 Hz-20kHz CN-234

 $355 \times 94 \times 345 \text{ mm(w/h/d)}$ $(14 \times 3^3/_4 \times 13^5/_8 \text{ inches})$ Approx. 2.5 kg (5 lb 8 oz)

US and Canadian model: 120V AC, 60Hz European model: 220-230V AC, 50/60Hz

Australian model: 240V AC, 50Hz Model for other countries: 110-120V/220-240V adjustable with the voltage selector AC, 50/60Hz

2 W 45-rpm adaptor (1) Replacement stylus CN-234 Stat spray XP-C10 Cleaner XP-C1, XP-C2

Turntable

Platter Tone arm type Cartridge type Stylus Mass Dimensions

(PS-LX56P)

30 cm Dynamically balanced Moving magnet type Sony CN-234 (0.6 mil diamond) Approx. 2.3 kg (5 lb 1 oz) Approx. 355 x 95 x 345 mm $(14 \times 3^3)_4 \times 13^5$, inches) (w/h/d, including projections)

Design and specifications subject to change without notice

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression

> STEREO TURNTABLE SYSTEM SONY

9-959-216-12

2001G0200-1

© 2001.7

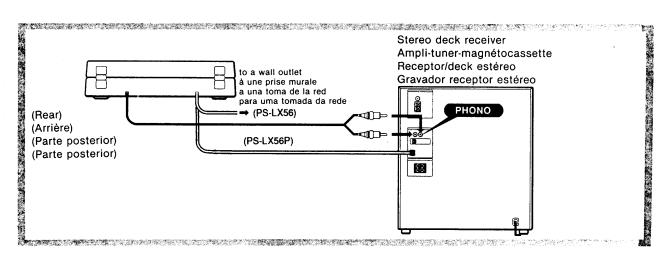
Sony Corporation Home Audio Company

Shinagawa Tec Service Manual Production Group

Connections

Note

Connect the red plug to the right-channel jack (R), and the white plug to the left-channel jack (L).



Notes on installation

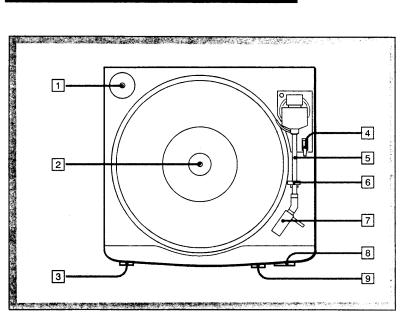
- · Place the turntable on a level surface.
- Avoid placing the unit near electrical appliances (such as a television, hair dryer, or fluorescent lamp) which may cause hum or noise.
- Place the turntable where it will not be subject to any vibration, such as from speakers, slamming of doors, etc.
- Keep the unit away from direct sunlight, extremes of temperature, and excessive dust and moisture.

To remove the dust cover

Α

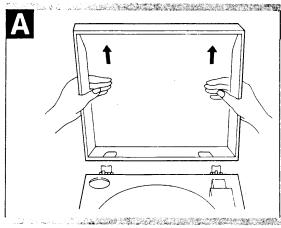
Open the cover fully and pull it up.

Location of Controls

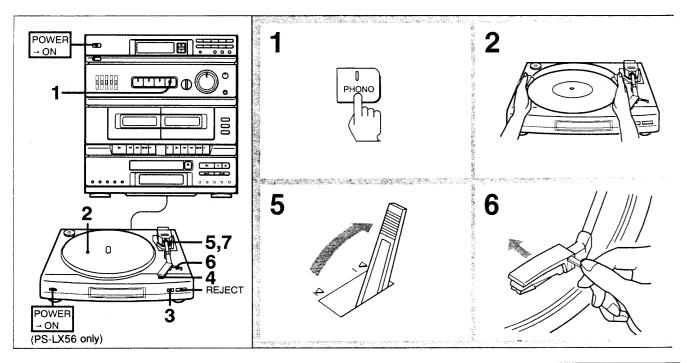


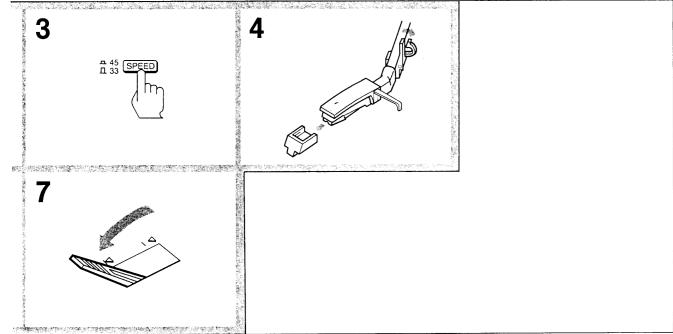
Nota

Conecte la clavija roja a la toma del canal derecho (R), y la blanca a la del canal izquierdo (L).



- 1 45-rpm adaptor
- 2 Centre spindle
- 3 POWER switch (PS-LX56)
- 4 Cueing lever
- 5 Tonearm
- 6 Armrest
- 7 Cartridge
- 8 REJECT button
- 9 Speed selector





When the record is played to the end, the tonearm returns to the armrest and the turntable stops.

To stop during play, press REJECT.

To play a different part of the record

Lift the tonearm by setting the cueing level to $\underline{\mathbb{Y}}$, move the tonearm by hand to the desired point, then set the cueing lever to $\underline{\mathbb{Y}}$.

To play a 17-cm record
Use the supplied adaptor

If the tonearm moves outward when you move it colse to the centre

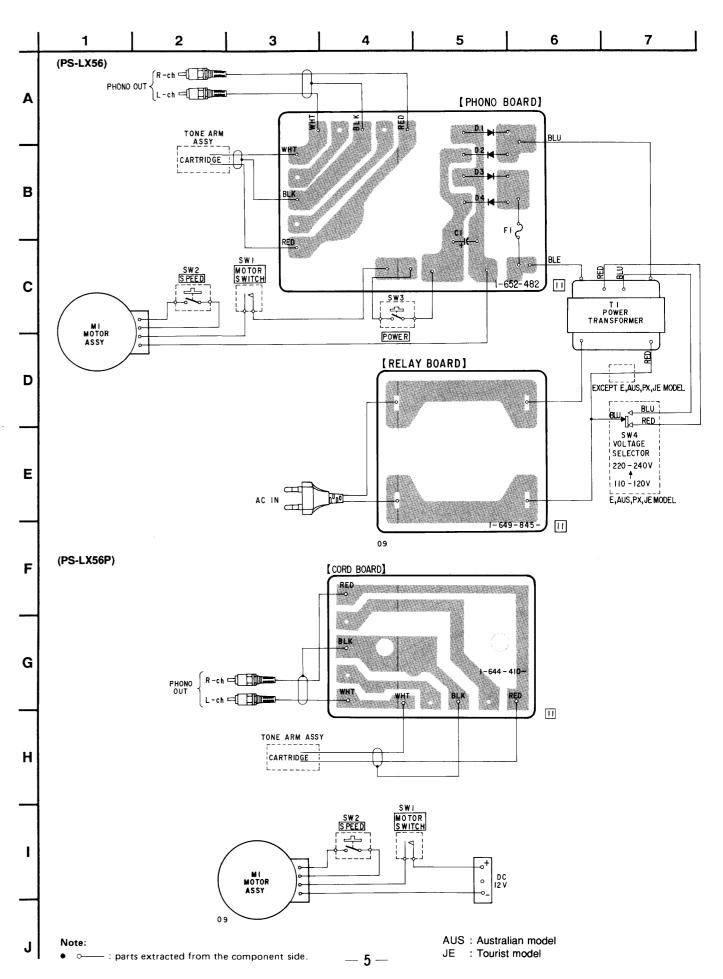
Do not resist this movement, as it may damage the automatic return mechanism.

If the tonearm does not return to its armrest Press REJECT.

SCHEMATIC DIAGRAMS

· Switches : (PS-LX56) Ref. No. | Switch | Position SW1 MOTOR OFF SW2 SPEED 33 SW3 POWER OFF (PHONO BOARD) MOTOR ASSY MI EXCEPT E, AUS, PX, JE Model CARTRIDGE (PS-LX56P) MOTOR ASSY MI [CORD BOARD] 8.3 SW2 SPEED 45 D CARTRIDGE PHONO OUT • All capacitors are in μF unless otherwise The components identified by mark A noted. pF:μμF 50WV or less are not Ref. No. Switch Position SW1 MOTOR OFF or dotted line with mark ∆ are critical for indicated except for electrolytics and Replace only with part number specified. SW2 SPEED 33 • All resistors are in Ω and 1/4W or less SW3 POWER OFF unless otherwise specified. Les composants identifiés par une VOLTAGE 240V marque Δ sont critiques pour la SW4 AUS: Australian model SELECTOR sécurité. JE : Tourist model Ne les remplacer que par une pièce portant le numéro spéci-fié.

WIRING DIAGRAMS



Ver 1.1 2001.07 Ver 1.1 2001.07

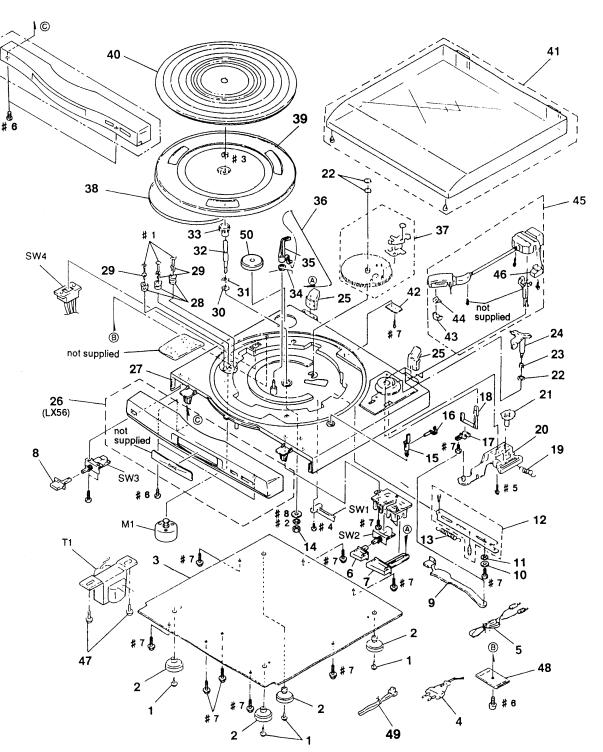
EXPLODED VIEW

26 (LX56P)

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- AUS : Australian model The components identified by mark CND : Canadian model ⚠ or dotted line with mark ⚠ are critical for safety. • EE : East European model Replace only with part number • IT : Italian model specified. MX : Mexican model

Les composants identifiés par une marque 🛕 sont critiques pour la sécurité.

Ne les remplacer que par une piéce portant le numéro spécifié.



• EA : Saudi Arabia model

• SP : Singapore model

MY : Malaysia model

• JE : Tourist

Ref. No.	Part No.	<u>Description</u> <u>Remar</u>	Ref. No.	Part No.	<u>Description</u> <u>Remark</u>
1 2		PLASTIC STAND	39 40	4-947-539-01	
* 3 <u>^</u> ^4 <u>^</u> ^4	1-575-651-61	BUTTON BOARD CORD, AC (LX56: AEP, EA, EE, IT, MX, MY, CIS, SP CORD, AC (LX56: CND, US)	* 42 * 42	1-652-482-11	DUST COVER ASSY PHONO BOARD (LX56) CORD BOARD (LX56P)
⚠ 4 ⚠ 4 ⚠ 4 5 6	1-690-608-11 1-696-570-21 1-555-116-11	CORD, AC (LX56: E) CORD, AC (LX56: AUS) CORD, AC (LX56: UK) CORD, PHONO(BLACK) KNOB SPEED(BLACK)	43 44 45 46 47	4-951-290-01 A-4604-940-A 4-947-464-01	COVER, CARTRIDGE STYLUS (CN-234) ARM ASSY, TONE COUNTER WEIGHT SCREW (LX56)
6	4-964-177-11	KNOB SPEED(LX56:SILVER, SILVER METALLIC	* 48 49	1-557-109-21	RELAY BOARD (LX56) CORD, DC (LX56P)
7 7	4-964-178-01 4-964-178-11	KNOB REJECT(BLACK)	M1 SW1	3-701-806-00 A-4604-945-A 1-570-666-11	
8 8	4-964-184-01 4-964-184-11	KNOB POWER (LX56:BLACK)	S₩2 S₩3 Δ\S₩4 Δ\T1	1-692-211-11 1-692-835-11 1-450-987-11	SWITCH, PUSH (SPEED) (1 KEY) SWITCH, PUSH (POWER) (1 KEY) (LX56) VOLTAGE SELECTOR (LX-56: AUS, E, MX, MY, SP) TRANSFORMER, POWER (LX56: AEP, EE, IT, CIS)
9 10	4-947-487-01 4-890-173-00	WASHER	<u> </u>	1-450-987-21	TRANSFORMER, POWER (LX56: AUS, E, PX, EA, JE, MX, SP)
11 12 13	3-659-350-00 A-4604-947-A 4-947-485-01	RETURN ASSY, LEVER	ΔT1 ΔT1	1-450-987-31 1-450-987-41	TRANSFORMER, POWER (LX56: MY) TRANSFORMER, POWER (LX56: U, CA)
14 15 16 17 18	4-947-477-01				
19 20 21 22 23	4-963-537-01 4-963-536-01 4-963-535-01 4-947-514-01 4-947-467-01	LINK RETURN ADJUST CAM 4MM CS RING			
24 25 26 26	A-4660-498-A A-4384-982-A	TONE ARM ELEVATOR HINGE ASSY PANEL (B) ASSY, FRONT (LX56: SILVER) PANEL (B) ASSY, FRONT (LX56: SILVER METALLIC)			
26	A-4660-577-A	FRONT PANEL (G) ASSY (LX56: GRAY) (US)			
26 26 * 27 * 27	A-4660-976-A 4-950-487-01	FRONT PANEL (G) ASSY (LX56: BLACK) FRONT PANEL (G) ASSY (LX56P) MAIN CABINET (B)(BLACK) MAIN CABINET (B)			
28	4-947-505-01	\dots (LX56:SILVER, SILVER METALLIC CUSHION MOTOR	(2)		
29 30 31 32 33	4-947-504-01 3-451-162-00 3-701-445-21 4-947-498-01 4-947-497-01	WASHER (56) WASHER STELL BALL			
34 35 36 37 38	4-948-101-01	WIPER REJECT SPRING (38) GEAR ASSY, SPUR			

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CORD PHONO RELAY

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS

All resistors are in ohms METAL: Metal-film resistor METAL OXIDE: Metal Oxide-film resistor F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list is given in the last of this

• SEMICONDUCTORS

In each case, u: μ , for example: uA...: *μ* A..., uPA...: *μ* PA...,

- CAPACITORS

uPB...: μPB..., uPC...: μPC..., uPD...: *μ* PD...

- $uF: \mu F$
- COILS $uH: \mu H$

 AUS : Australian model • CND : Canadian model

MX : Mexican model

• EE : East European model • IT : Italian model

> • EA : Saudi Arabia model • SP : Singapore model MY : Malaysia model

• JE : Tourist

⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. Les composants identifiés par une marque 🛕 sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

The components identified by mark

Ref. No.	Part No.	Descri	ption	Remark	Ref. No.	Part No.	Description	Remark
*	1-644-410-11	CORD BO	ARD (LX56P)			ACCESSODIES	& PACKING MATERIALS	•
T	1 044 410 11	*****	, ,				*************	
						********	********	
*******************						3-758-045-11	MANUAL INSTRUCTION	
								guese) (LX56 AEP, CND)
*	1-652-482-11	PHONO B	BOARD (LX56)			3-758-045-21	MANUAL INSTRUCTION (English) (LX56 US, UK)
		*****					MANUAL INSTRUCTION	Digitally (Dago 03, City)
				(German, Dutch, Swedish, Italian) (LX56 AEP, IT)				
		< CAPAC	CITOR >				MANUAL INSTRUCTION	carrain (2.100 hbr) ir)
							(English.Fre	nch, Spanish, Chinese)
C1	1-126-012-11	ELECT	470uF	16V		_		E, PX, MX, EA, MY, SP, JE)
						3-758-045-61	MANUAL INSTRUCTION	
		< DIODE	₹ >	1		•	(English, German,	Polish) (LX56 EE, CIS)
D1	8-719-200-82		11ES2		*	4-947-532-01		
D2	8-719-200-82		11ES2		*	4-947-533-01		
D3	8-719-200-82		11ES2			3-701-806-00	ADAPTOR, 45	
D4	8-719-200-82	DIODE	11ES2		ale ale ale ale ale ale ale ale	alle alle alle alle alle alle alle alle		

		< FUSE	>			******	*****	
A D1	1 500 010 00	DUOD DI	ND 110 (D000 1)				VARE LIST	
⚠ F1	1-532-613-XX	FUSE TI	ME-LAG (T200mA)				**********	
						*****	****	
*****	****	*****	************	********	#1	7-621-773-87	SCREW (64)	
*	1-649-845-11	DEI AV B	OVDD (I AEV)		#2	7-623-210-22	• •	
Τ.	1-045-045-11	*****	- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		#3	7-624-110-04	(,	
		****	· ጥ ጥ ጥ		#4	7-685-105-01		
**********************				#5	7-685-645-79	• •		
	*************************************						,	
					#6	7-685-646-79	SCREW (60)	
					#7	7-685-647-79	SCREW (58)	
					#8	7-688-005-01	WASHER (69)	
				'				

<u>MEMO</u>

PS-LX56/LX56P

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision				
1.1	2001.07	PDF registration				
		(including: 9-959-216-81, 9-959-216-82, 9-959-216-83, 9-959-216-91)				
1.0	1993.11	New				

PS-LX56/LX56P

SONY

SERVICE MANUAL

US Model
Canadian Model
PX Model
Tourist Model
PS-LX56
AEP Model
UK Model
E Model
Australian Model

SUPPLEMENT-3

File this supplement with the service manual.

Subject: SILVER METALLIC MODEL ADDITION (PS-LX56)

- PS-LX56 (SILVER METALLIC MODEL) is similar to the earlier PS-LX56 (BLACK MODEL).
- Refer to the previous issued service manual for information not contained in this supplement-3.

DIFFERENCE TABLE

Page	PS-LX56 (BLACK Model)				PS-LX56 (SILVER METALLIC Model)				
	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	Ref. No.	Part No.	<u>Description</u>	<u>Remark</u>	
7	6 7 8 26 * 27	4-964-177-01 4-964-178-01 4-964-184-01 A-4660-578-A 4-950-487-01	KNOB SPEED KNOB REJECT KNOB POWER (LX56) FRONT PANEL (G) ASSY MAIN CABINET (B)	(LX56:BLACK)	6 7 8 26 * 27	4-964-177-11 4-964-178-11 4-964-184-11 A-4411-941-A 4-950-487-11	KNOB SPEED KNOB REJECT KNOB POWER PANEL (B) ASSY, FRONT MAIN CABINET (B)		

NOTE:

 Items marked "*" are not stocked since they are seldom required for routine service.
 Some delay should be anticipated when ordering these items.